U.S. DEPARTMENT OF COMMERCE
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PB-278 818

Water Resources Data for Wyoming Water Year 1976. Volume 1 Missouri River Basin

Geological Survey, Cheyenne, Wyo Water Resources Div

Dec 77

PB 278 818

Water Resources Data for Wyoming

Water Year 1976

Volume 1. Missouri River Basin

U.S. DEPARTMENT OF THE INTERIOR
MARCH 3, 1849

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT WY-76-1

Prepared in cooperation with the State of Wyoming
and with other agencies

REPRODUCED BY
NATIONAL TECHNICAL
INFORMATION SERVICE
U. S. DEPARTMENT OF COMMERCE
SPRINGFIELD, VA. 22161

BIBLIOGRAPHIC DATA SHEET

1. Report No. USGS/WRD/HD-77/063

2.

3. Recipient's Accession No. PB278818

4. Title and Subtitle
Water Resources Data for Wyoming, Water Year 1976
Volume 1. Missouri River Basin

5. Report Date December 1977

6.

7. Author(s)

8. Performing Organization Rept. No. USGS-WDR-WY-76-1

9. Performing Organization Name and Address
U.S. Geological Survey, Water Resources Division
P.O. Box 1125
Cheyenne, Wyoming 82001

10. Project/Task/Work Unit No.

11. Contract/Grant No.

12. Sponsoring Organization Name and Address
U.S. Geological Survey, Water Resources Division
P.O. Box 1125
Cheyenne, Wyoming 82001

13. Type of Report & Period Covered Annual - Oct. 1, 1975 to Sept. 30, 1976

14.

15. Supplementary Notes
Prepared in cooperation with the State of Wyoming and with other agencies.

16. Abstracts Water resources data for the 1976 water year for Wyoming consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of wells. This report, in two volumes, contains discharge records for 226 gaging stations; stage only records for 1 lake; stage and contents for 16 lakes and reservoirs; water quality for 116 gaging stations, 68 ungaged stations, 4 lakes and reservoirs, and 253 wells and springs; and water levels for 48 observation wells. Also included are 111 crest-stage partial-record stations. Additional water data were collected at various sites, not part of the systematic data-collection program, and are published as miscellaneous measurements and analyses. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Wyoming.

17. Key Words and Document Analysis. 17a. Descriptors
*Wyoming, *Hydrologic data, *Surface water, *Ground water, *Water quality, Flow-rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses.

17b. Identifiers/Open-Ended Terms

17c. COSATI Field/Group

18. Availability Statement No restriction on distribution.
This report may be purchased from:
National Technical Information Service
Springfield, VA 22161

19. Security Class (This Report) UNCLASSIFIED

20. Security Class (This Page UNCLASSIFIED

21. No. of Pages 644

22. Price PC A99/A01

FORM NTIS-35 (REV. 10-73) ENDORSED BY ANSI AND UNESCO. THIS FORM MAY BE REPRODUCED USCOMM-DC 8265-P74

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Prepared in cooperation with the State of Wyoming
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UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

V. E. McKelvey, Director

For information on the water program in Wyoming write to
District Chief, Water Resources Division
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Cheyenne, Wyoming 82001

1977

PREFACE

This report was prepared by personnel of the Wyoming district of the Water Resources Division of the U.S. Geological Survey under the supervision of Sam W. West, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region. It was done in cooperation with the State of Wyoming and with other agencies.

This report is one of a series issued by State. General direction for the series is by J. S. Cragwall, Jr., Chief Hydrologist, U.S. Geological Survey, and G. W. Whetstone, Assistant Chief Hydrologist for Scientific Publications and Data Management.

Data for Wyoming are in two volumes as follows:
Volume 1. Missouri River Basin
Volume 2. Green River, Bear River, and Snake River Basins

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[Letter after station name designates type of data: (d) discharge, (e) elevation, gage height, or contents, (c) chemical, (b) biological, (m) microbiological, (p) pesticides, (t) water temperature, (s) sediment]

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WATER RESOURCES DATA FOR WYOMING, 1976

VOLUME 1: MISSOURI RIVER BASIN
VOLUME 2: GREEN RIVER, BEAR RIVER, AND SNAKE RIVER BASINS

INTRODUCTION

Water resources data for the 1976 water year for Wyoming consists of records of stage, discharge, and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. The two volumes of this report contain discharge records for 226 gaging stations; stage only records for 1 lake; stage and contents for 16 lakes and reservoirs, water quality for 116 gaging stations, 68 ungaged stations, 4 lakes and reservoirs, and 253 wells and springs; and water levels for 48 observation wells. Also included are 111 crest-stage partial-record stations. In Volume 1 (Missouri River basin) locations of gaging stations and peak-flow partial-record stations are shown in figures 4-6, and locations of observation wells and sites where water-quality data were collected from wells are shown in figures 7-9. In Volume 2 (Green River, Bear River, and Snake River basins) locations of gaging stations and peak-flow partial-record stations are shown in figures 4 and 5, and locations of observation wells and sites where water-quality data were collected from wells are shown in figures 6 and 7. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U.S. Geological Survey and cooperating State and Federal agencies in Wyoming.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, VA 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a State-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released either in separate reports or in conjunction with streamflow records. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a State-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, this report is identified as "U.S. Geological Survey Water-Data Report WY-76-1." Water-Data reports are for sale by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

COOPERATION

The U.S. Geological Survey and organizations of the State of Wyoming have had cooperative agreements for the systematic collection of streamflow records since 1895, for ground-water levels since 1940, and for water-quality records since 1946. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

Wyoming Department of Agriculture, Larry J. Bourret, commissioner

Wyoming State Engineer, George L. Christopulos

Wyoming Department of Economic Planning and Development, Myron W. Goodson, Chief of Water Development

Wyoming Department of Environmental Quality, William Garland, acting Administer, Water Quality Division

Wyoming Highway Department, William G. Lucas, superintendent

Wyoming Water Resources Research Institute, Paul A. Rechard, director

City of Cheyenne, Board of Public Utilitites, Ray L. Sherard, superintendent

City of Riverton, William P. Williams, city engineer

Teton County 208 Planning Agency, William H. Ashley, chairman

Assistance in the form of funds or services was given by the Bureau of Reclamation, the Bureau of Land Management, and the National Park Service, Department of the Interior, by the Corps of Engineers, U.S. Army, and by the Environmental Protection Agency, in collecting data published in the report. Funds and services were also provided by the Missouri River Basin Program.

The following organization aided in collecting records:

Western Ore Operations, United States Steel Cooperation

Organizations that supplied data are acknowledged in station descriptions.

ACKNOWLEDGMENT

Wyoming district personnel who contributed significantly to the collection and preparation of the data in this report were, F.C. Boner, chief, Hydrologic Surveillance Section, assisted by S.A. Druse, W.R. Glass, D.J. O'Connell, D.J. Pangburn, J.R. Schuetz, K.G. Polinoski, and S.L. Green.

HYDROLOGIC CONDITIONS

Streamflow during the 1976 water year was above average in the Yellowstone, Shoshone, upper Green, lower Bear, and Snake River basins. Near average flow occurred in the Powder River basin and below average flow occurred in the remainder of the State.

As the water year began, streamflow was near or above average in most of the large streams. Winter flows were near normal. Near or above average flow was observed in most of the State during the mountain snowmelt period of May and June except in the North Platte River basin and streams in the Green River and upper Bear River basins draining the Uinta Mountains in southwestern Wyoming. Near normal flow occurred in most of the State during the summer months. Monthly and annual mean discharge is compared with medians at the two representative gaging stations in figure 3.

Reservoir storage in the upper Yellowstone River basin increased 13,800 acre-feet (17.0 hm^3) during the year. Storage in Keyhole Reservoir on the Belle Fourche River decreased 2,400 acre-feet (2.96 hm^3) during the year. In the North Platte River basin, storage in the major reservoirs decreased 158,000 acre-feet (195 hm^3). Storage in the Green River basin decreased 178,000 acre-feet (219 hm^3) during the year.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are definied below. See also the table for converting English units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life process. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer, tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C + 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters(L).

Cfs-day is the volume of water represented by flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, about 646,000 gallons or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a steam or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/S, ft^3/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Instantaneous discharge is the discharge at a particular instant of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Dissolved refers to the amount of substance present in true chemical solution. In practice, however, the term includes all forms of substance that will pass through a 0.45-micrometer membrane filter, and thus may include some very small (coloidal) suspended particles. Analyses are performed on filtered samples.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of matamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic detergent compounds.

Micrograms per gram (μg/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, μg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle-size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay.........	0.00024 - 0.004	Sedimentation.
Silt.........	.004 - .062	Sedimentation.
Sand.........	.062 - 2.0	Sedimentation or sieve.
Gravel.......	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms.

Pesticides are chemical compounds used to control undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respecitively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1 x 10^{12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7 x 10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats or floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2.time) for periphyton and macrophytes and mg C/(m^3.time)] for phytoplankton are units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactivity carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O_2/(m^2.time) for periphyton and macrophytes and mg O_2/(m^3.time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is the quantity of suspended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium-adsorption-ratio (SAR) is the expression of relative activity of sodium ions in exchange reaction with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigating farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occurring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended (as used in tables of chemical analyses) refers to the amount (concentration) of the total concentration in a water-sediment mixture. The water-sediment mixture is associated with (or sorbed on) that material retained on a 0.45 micrometer filter.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata* is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	*Hexageria*
Species	*Hexagenia limbata*

Thermograph is an instrument that continuously records variations of temperature on a chart. The more general term "temperature recorder" is used in the table headings and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration in milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour day.

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the constituent, times the factor 0.0027, times the number of days.

Water year in Geological Survey reports dealing with surface-water supply is the 12-month period, October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 1976, is called the "1976 water year."

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in reference to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 06630000, which appears just to the left of the station name, includes the 2-digit part number "06" plus the 6-digit downstream order number "630000".

NUMBERING SYSTEM FOR WELLS AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells and miscellaneous sites where only random water-quality samples or discharge measurements are taken.

The well and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees, minutes, and seconds of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 1 below.

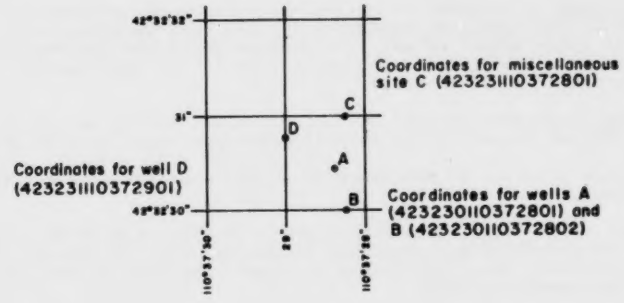
42°32'32"
31"
42°32'30"
110°37'30"
29"
110°37'28"
A
B
C
D
Coordinates for miscellaneous site C (423231110372801)
Coordinates for well D (423231110372901)
Coordinates for wells A (423230110372801) and B (423230110372802)

Figure 1.—System for numbering wells and miscellaneous sites (latitude and longitude).

In order to compare data for wells in other publications, such as the county ground-water studies, the wells in this report are also numbered according to a system based on the location in the public land classification of the U.S. Bureau of Land Management. The system is illustrated in figure 2. The first numeral denotes the township north of a base line, the second numeral denotes the range west of the fifth principal meridian, and the third numeral denotes the section in which the well is located. The letters A, B, C, and D designate, respectively, the northeast, northwest, southwest, and southeast quarter section, quarter-quarter section, and quarter-quarter-quarter section (10-acre or 4-hectare tract). For example, well 26N-063W-32CDA is in the NE¼SE¼SW¼ sec.32, T.26 N., R.63 W. Consecutive terminal numbers are added if more than one well is recorded within a 10-acre tract.

For a small irregularly-shaped area in west central Wyoming, the well numbers are based on the Wind River Meridian and Base Line system. The uppercase letter that begins the number designates the quadrant of the system. The quadrants are lettered A, B, C, and D in a counterclockwise direction beginning with A in the northeast quadrant. Otherwise, the well numbers are the same as given in the preceding paragraph.

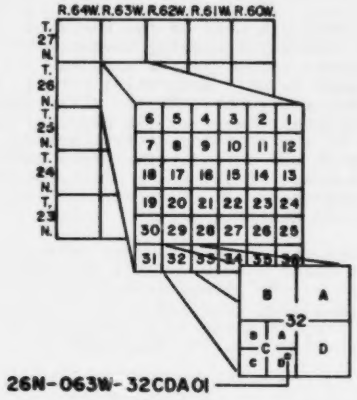

Figure 2.—System for numbering wells and miscellaneous sites (township and range).

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation stations. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard text-books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some stream-gaging stations the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise daily contents may be estimated on the basis of operator's log, prior and subsequent records, inflow-outflow studies, and other information.

The data in this report generally comprise a description of the station and tabulations of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given. It should be noted that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponging revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging station is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given first, the extremes for the period of record, second, information available outside the period of record, and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source, of indifinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a monthly summary table of stage and contents. For some reservoirs a table showing daily contents or stage is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good", within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 cfs; to tenths between 1.0 and 10 cfs; to whole numbers between 10 and 1,000 cfs; and to 3 significant figures above 1,000 cfs. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff in inches are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records, and rating tables is on file in the district office. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

Records of discharge collected by agencies other than the Geological Survey

The National Water Data Exchange, Water Resources Division, U.S. Geological Survey, National Center, Reston, VA 22092, maintains an index of such sites. Information on records available at specific sites can be obtained upon request.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives the period of record for all water-quality data; the period of daily record for parameters that are measured on a daily basis (specific conductance, pH, dissolved oxygen, water temperature, sediment discharge, etc.); extremes for the period of daily record; extremes for the current year; and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on the following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small daily temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of quantities of suspended sediment, records for the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figures 1 and 2.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of meansurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-three manuals by the U.S. Geological Survey have been published to date in the series on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office).

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature-influential factors, field measurement, and data presentation*, by H. H. Stevens Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1 1975. 65 p. $1.60.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages. $1.90.

2-E1. *Application of borehole geophysics to water-resources investigations*, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages. $1.75.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages. $0.25.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages. $0.20.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages. $0.40.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages. $1.00.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages. $0.30.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages. $0.20.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages. $0.45.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages. $1.25.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages. $0.40.

3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A12. 1968, 31 pages. $0.35. Not currently available.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages. $0.70.

3-B2. *Introduction to ground-water hydraulics-a programed text for self-instruction*, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages. $2.50.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages. $0.65.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages. $0.70.

3-C3. *Computation of fluvial-sediment discharge*, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 56 pages. $1.15.

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages. $0.30.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. 0.20.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972, 18 pages. $0.65.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. $0.75.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. $0.75.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages. $0.65.

5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. $2.40.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. $0.80.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. $0.90.

5-A4. *Methods for collection and analysis of aquatic biological and microbiological samples*, by K. V. Slack, R. C. Averett, P. E. Greeson, and R. G. Lipscomb: USGS--TWRI Book 5, Chapter A4. 1973. 165 pages. $1.95.

5-A5. *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages. $16.00 (by subscription only).

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. $0.65.

7-C1. *Finite-difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages. $2.30.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages. $0.70.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. $0.40.

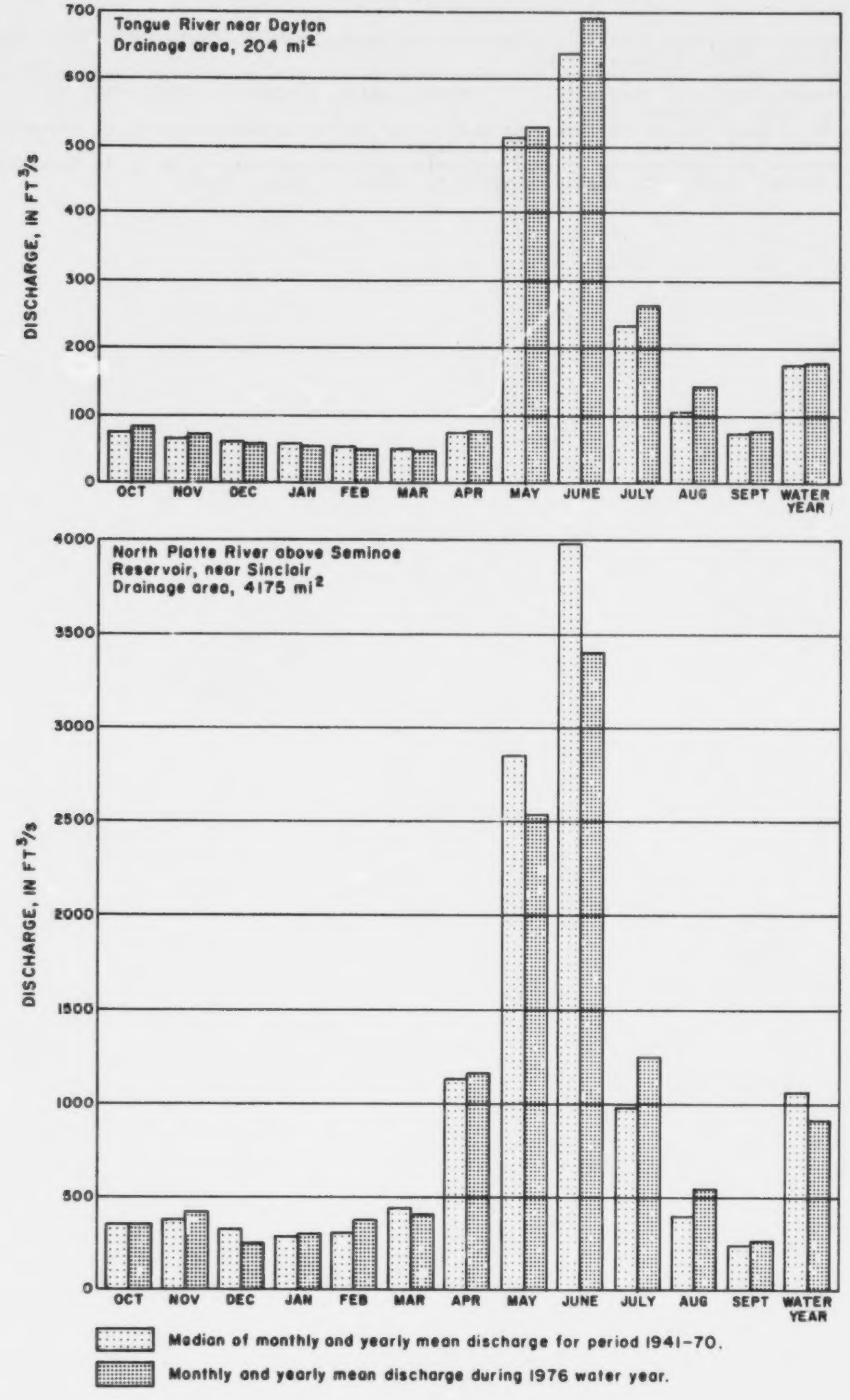

Figure 3.—Discharge during 1976 water year compared with median discharge for period 1941-70 for two representative gaging stations.

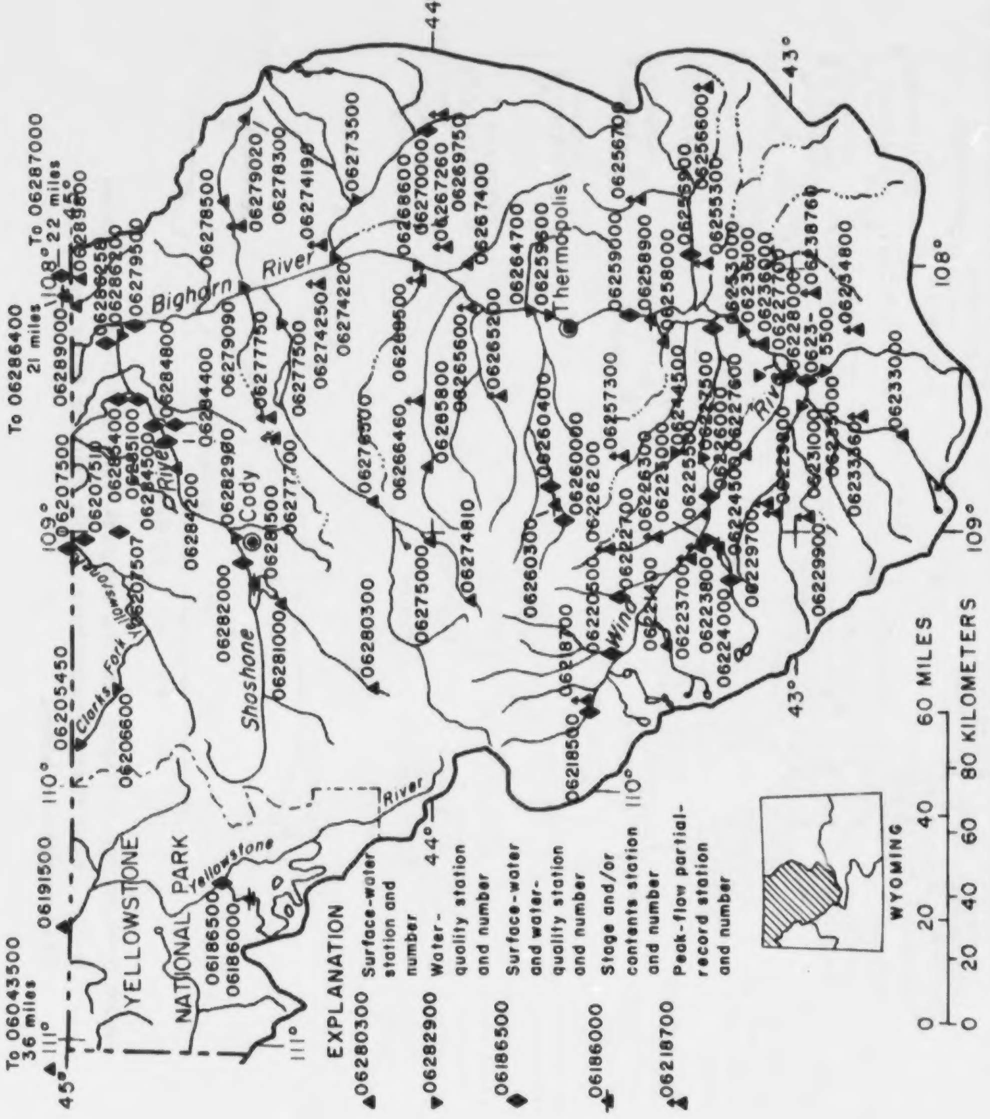
To 06043500
36 miles
To 06286400
21 miles
To 06287000
22 miles
45°
111°
110°
109°
108°
44°
43°
YELLOWSTONE
NATIONAL
PARK
Yellowstone
River
Clarks Fork Yellowstone
Shoshone
River
Bighorn
River
Wind
River
Cody
Thermopolis
06191500
06186500
06186000
06205450
06206600
06207500
06207507
06207510
06282000
06281000
06280300
06281500
06282960
06284200
06284500
06285100
06285400
06284800
06284400
06289000
06279500
06279090
06277750
06277700
06277500
06276500
06274250
06274220
06278500
06279020
06278300
06274190
06273500
06268600
06270000
06267260
06269750
06267400
06266460
06268500
06265800
06265600
06265200
06264700
06259600
06275000
06274810
06260300
06260400
06260000
06257300
06259000
06258900
06258000
06256700
06256600
06255900
06255300
06253000
06236100
06218500
06218700
06220500
06221400
06222700
06223700
06223800
06224000
06229700
06229900
06231000
06233000
06234800
06238760
EXPLANATION
06280300 Surface-water station and number
06282900 Water-quality station and number
06186500 Surface-water and water-quality station and number
06186000 Stage and/or contents station and number
06218700 Peak-flow partial-record station and number
WYOMING
0 20 40 60 MILES
0 20 40 60 80 KILOMETERS

Figure 4.—Location of gaging stations and peak-flow partial-record stations in the Yellowstone River, Clarks Fork Yellowstone River, and Bighorn River basins.

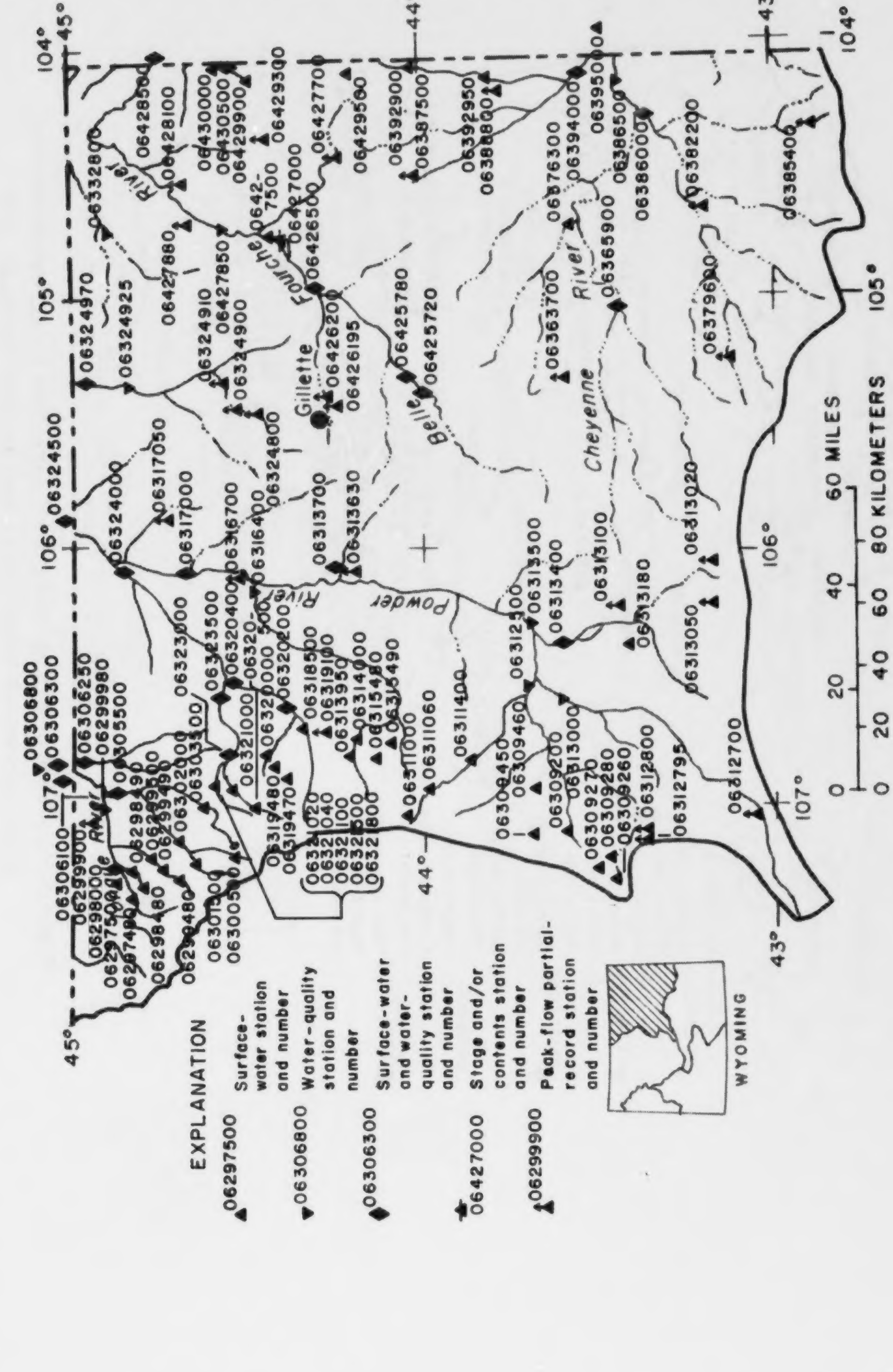
EXPLANATION
06297500 Surface-water station and number
06306800 Water-quality station and number
06306300 Surface-water and water-quality station and number
06427000 Stage and/or contents station and number
06299900 Peak-flow partial-record station and number
WYOMING
45°
44°
43°
107°
106°
105°
104°
Tongue River
Powder River
Belle Fourche River
Cheyenne River
Gillette
06306800
06306300
06306250
06299980
06305500
06306100
06299900
06298000
06297500
06324970
06324925
06324500
06324000
06317050
06317000
06316700
06316400
06324800
06324910
06324900
06313700
06313630
06426200
06426195
06425780
06425720
06427880
06427850
06428500
06428100
06430000
06430500
06429900
06429300
06427700
06427500
06427000
06426500
06429500
06392900
06387500
06392950
06388800
06376300
06394000
06395000
06386500
06386000
06382200
06385400
06379600
06363700
06365900
06313100
06313020
06313500
06313400
06313180
06313050
06312500
06311400
06311060
06311000
06312700
06312795
06312800
06309450
06309460
06309200
06313000
06309270
06309280
06309260
06323000
06323500
06320400
06320500
06320200
06320000
06318500
06319100
06313950
06314000
06315480
06315490
06321000
06319480
06319470
06301500
06300500
0 20 40 60 MILES
0 20 40 60 80 KILOMETERS

Figure 5.—Location of gaging stations and peak-flow partial-record stations in the Tongue River, Powder River, Belle Fourche River, and Cheyenne River basins.

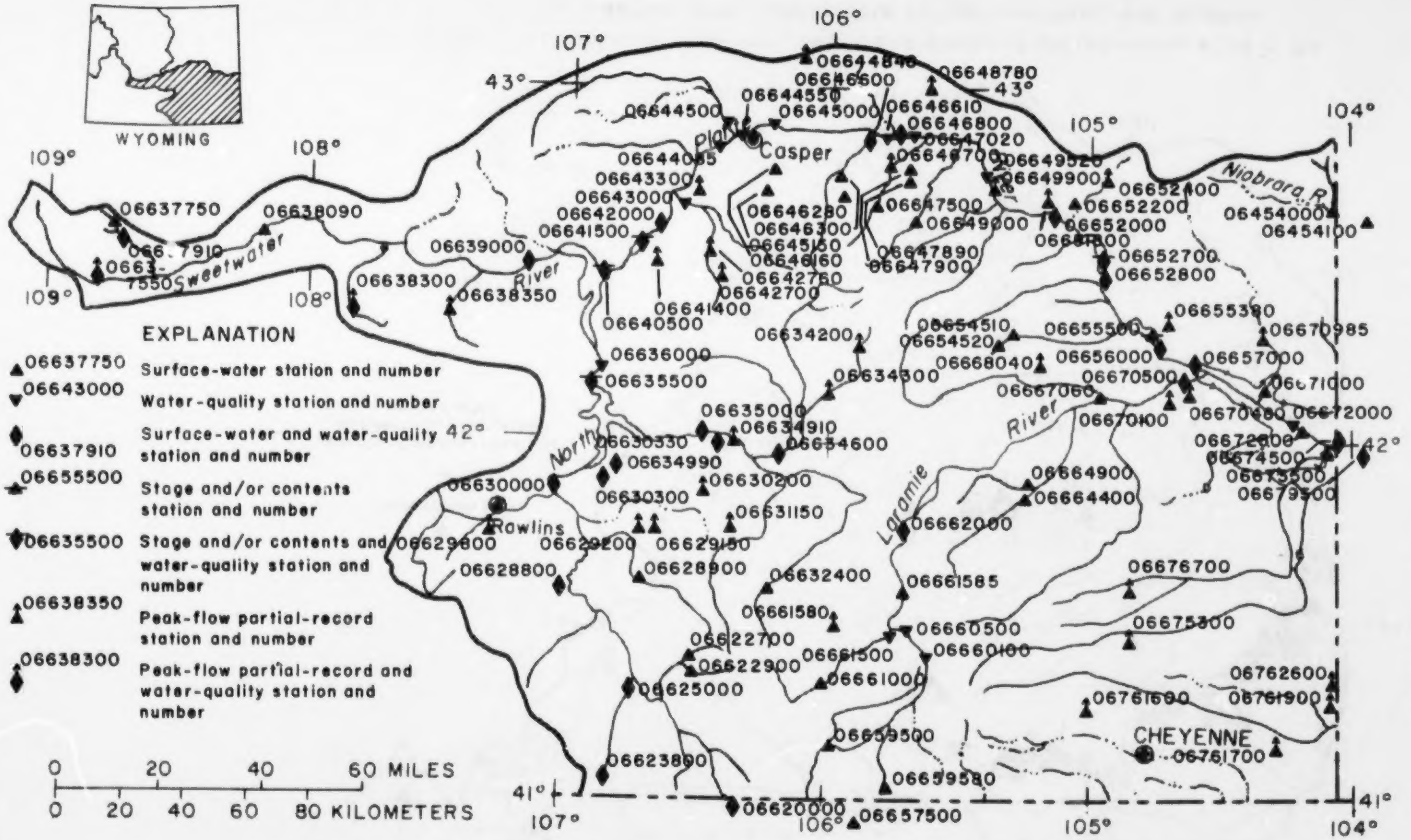
WYOMING
109°
108°
107°
106°
105°
104°
43°
42°
41°
EXPLANATION
06637750 Surface-water station and number
06643000 Water-quality station and number
06637910 Surface-water and water-quality station and number
06655500 Stage and/or contents station and number
06635500 Stage and/or contents and water-quality station and number
06638350 Peak-flow partial-record station and number
06638300 Peak-flow partial-record and water-quality station and number
0 20 40 60 MILES
0 20 40 60 80 KILOMETERS
Sweetwater
River
North
Platte
Casper
Rowlins
Laramie
River
Niobrara R.
CHEYENNE
06637750
06638090
7550
06638300
06638350
06639000
06641500
06642000
06643000
06643300
06644085
06644500
06644550
06644840
06646600
06645000
06648780
06646610
06646800
06647020
06646700
06649520
06649900
06652400
06652200
06652000
06652700
06652800
06454000
06454100
06646280
06646300
06645150
06646160
06642760
06642700
06641400
06640500
06647500
06649000
06647890
06647900
06634200
06634300
06654510
06654520
06668040
06655500
06655380
06656000
06657000
06670500
06670985
06671000
06667060
06670100
06672000
06672600
06674500
06675500
06679500
06636000
06635500
06635000
06634910
06634600
06630330
06634990
06630000
06630200
06630300
06631150
06629800
06629200
06629150
06628800
06628900
06632400
06664900
06664400
06662000
06661585
06661580
06660500
06660100
06622700
06622900
06661500
06661000
06625000
06623800
06620000
06657500
06659500
06659580
06676700
06675300
06762600
06761900
06761600
06761700

Figure 6.—Location of gaging stations and peak-flow partial-record stations in the Niobrara River and Platte River basins.

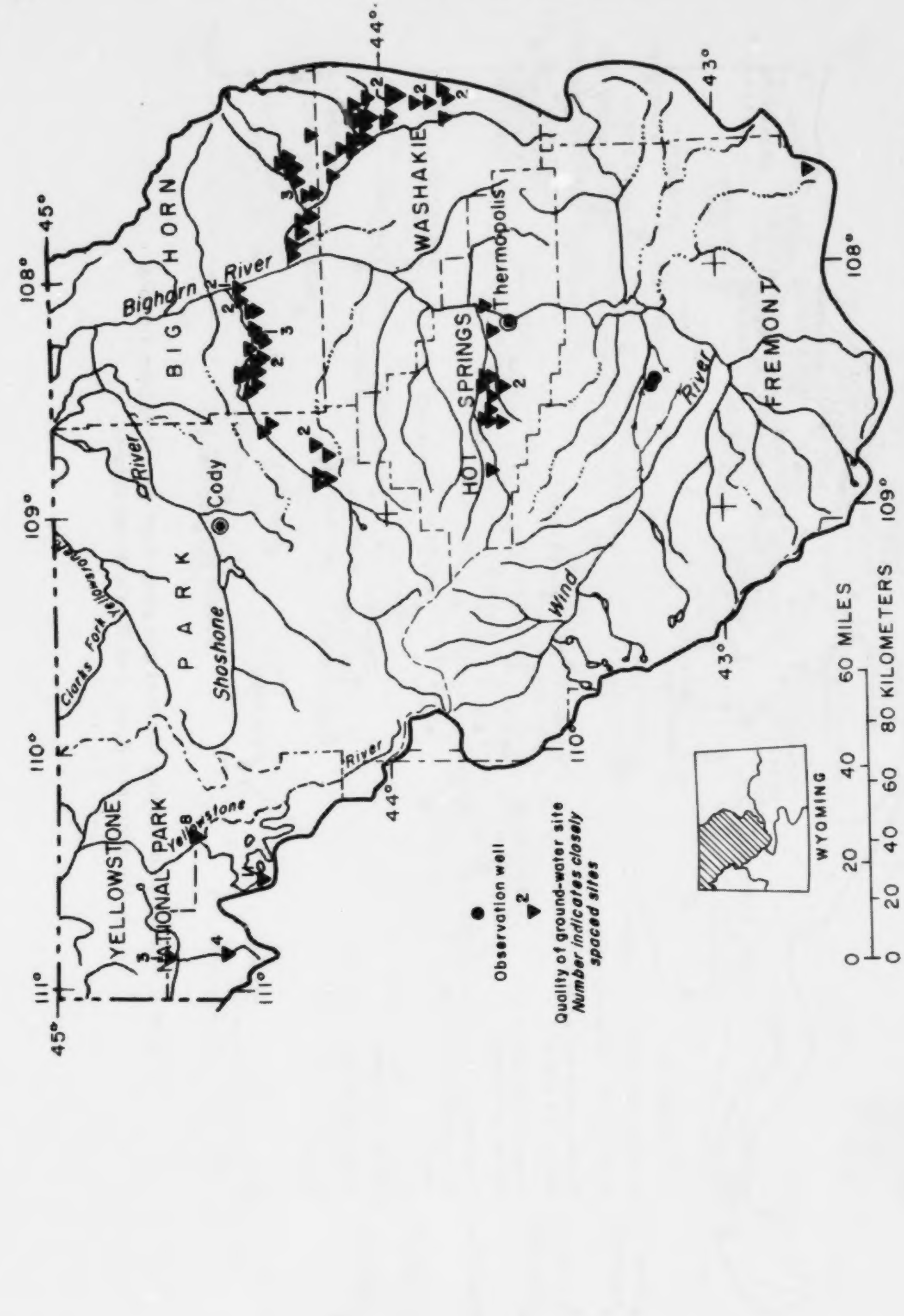
45°
111°
110°
109°
108°
45°
44°
43°
111°
110°
109°
108°
43°
44°
YELLOWSTONE
NATIONAL
PARK
Yellowstone
River
Clarks Fork Yellowstone
River
PARK
Shoshone
Cody
BIG
HORN
Bighorn River
WASHAKIE
HOT
SPRINGS
Thermopolis
Wind
River
FREMONT
Observation well
Quality of ground-water site
Number indicates closely spaced sites
0 20 40 60 MILES
0 20 40 60 80 KILOMETERS
WYOMING

Figure 7.—Location of observation wells and quality of ground-water sites in the Yellowstone River, Clarks Fork Yellowstone River, and Bighorn River basins.

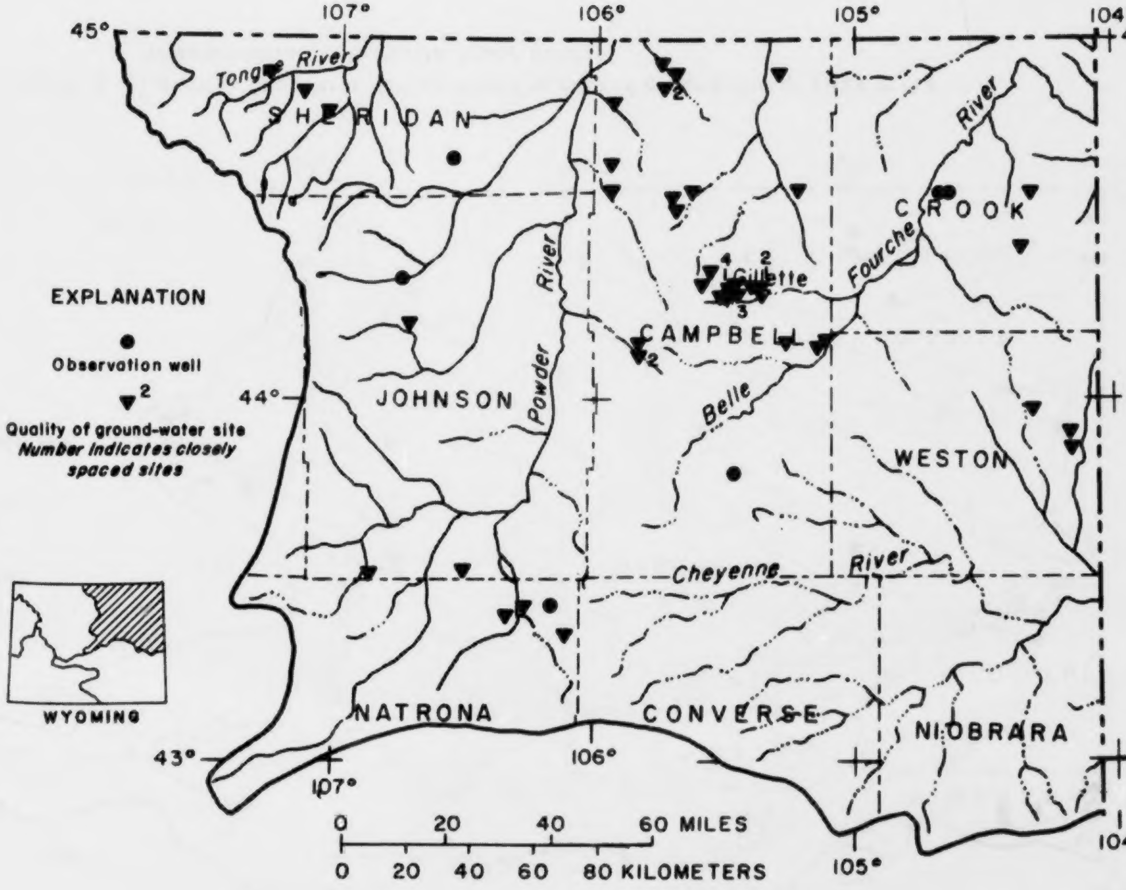
107°
106°
105°
104°
45°
44°
43°
Tongue River
SHERIDAN
JOHNSON
Powder River
CAMPBELL
Gillette
Belle Fourche River
CROOK
WESTON
Cheyenne River
NATRONA
CONVERSE
NIOBRARA
4
2
3
2
2
0 20 40 60 MILES
0 20 40 60 80 KILOMETERS
EXPLANATION
● Observation well
▼2 Quality of ground-water site
Number indicates closely spaced sites
WYOMING

Figure 8.—Location of observation wells and quality of ground-water sites in the Tongue River, Powder River, Belle Fourche River, and Cheyenne River basins.

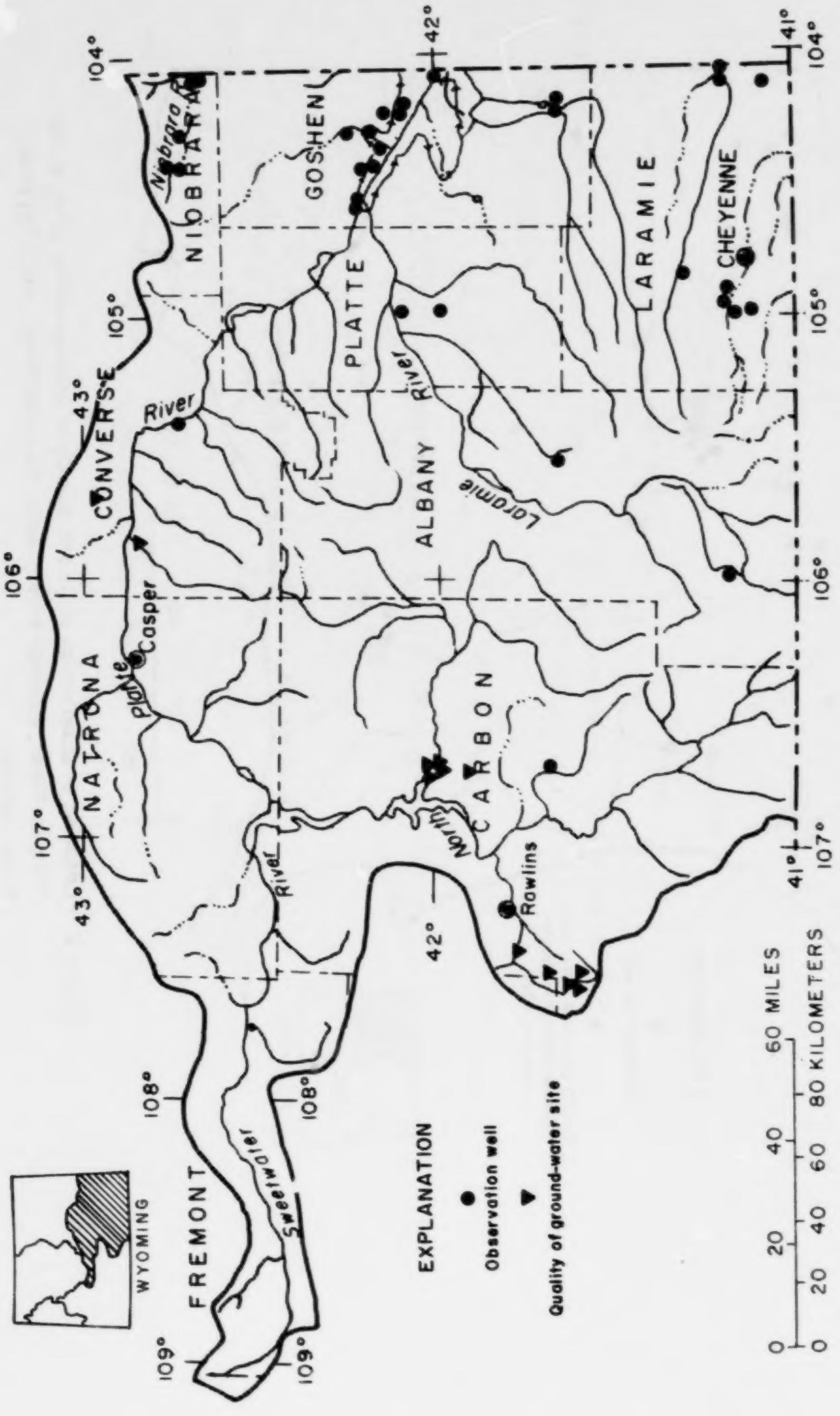
WYOMING
EXPLANATION
Observation well
Quality of ground-water site
FREMONT
NATRONA
CONVERSE
NIOBRARA
GOSHEN
PLATTE
ALBANY
CARBON
LARAMIE
CHEYENNE
Casper
Rawlins
Sweetwater
North
Platte
River
Laramie
River
Niobrara R.
104°
105°
106°
107°
108°
109°
41°
42°
43°
0 20 40 60 MILES
0 20 40 60 80 KILOMETERS

Figure 9.—Location of observation wells and quality of ground-water sites in the Niobrara River and Platte River basins.

GALLATIN RIVER BASIN

06043500 GALLATIN RIVER NEAR GALLATIN GATEWAY, MT

LOCATION.--Lat 45°29'51", long 111°16'09", in SE¼SE¼SE¼ sec.7, T.4 S., R.4 E., Gallatin County, Hydrologic Unit 10020008, on left bank 0.3 mi (0.5 km) downstream from Spanish Creek, 7.3 mi (11.7 km) south of Gallatin Gateway, and at mile 42.5 (68.4 km).

DRAINAGE AREA.--825 mi² (2,137 km²).

PERIOD OF RECORD.--August 1889 to September 1894, June 1930 to September 1969, annual maximum, water years 1970-71, October 1971 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as West Gallatin River near Bozeman 1889-94.

REVISED RECORDS.--WSP 1389: 1892(M), 1893-94. WSP 1559: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,167.7 ft (1,575.11 m) above mean sea level. Prior to Oct. 20, 1932, nonrecording gages at several different sites and datums within 0.8 mi (1.3 km) of present site.

REMARKS.--Records good. Diversions for irrigation of about 1,400 acres (5.67 km²) above station.

AVERAGE DISCHARGE.--49 years, 817 ft³/s (23.14 m³/s), 591,900 acre-ft/yr (730 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,690 ft³/s (274 m³/s) June 17, 1974, gage height, 7.38 ft (2.249 m); minimum, 117 ft³/s (3.31 m³/s) Jan. 19, 1935, gage height, 0.68 ft (0.207 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,900 ft³/s (82.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 11	1045	3410	96.6	4.10	1.250	June 22	1830	*5870	166	5.27	1.606
June 5	0200	5500	156	5.12	1.561	July 1	0245	3790	107	4.30	1.311

Minimum discharge, 281 ft³/s (7.96 m³/s) Mar. 2, gage height, 1.29 ft (0.393 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	561	586	445	372	383	376	416	650	4270	3590	1180	694
2	555	596	491	368	377	323	411	783	4450	3310	1200	684
3	547	610	500	394	397	354	383	930	4690	2980	1160	677
4	542	605	497	411	381	365	418	1390	5020	2860	1100	668
5	540	595	488	422	370	360	464	1360	4990	2810	1050	661
6	537	601	468	414	389	369	511	1330	4910	2760	1000	686
7	544	604	490	406	398	370	527	1460	5020	2660	971	831
8	603	550	502	394	410	376	594	1790	4890	2580	946	724
9	569	501	508	407	411	376	658	2150	4830	2450	936	691
10	576	548	512	402	388	379	628	2250	4710	2380	942	675
11	570	543	518	381	387	389	684	3110	4690	2260	911	677
12	581	490	495	391	380	348	779	2650	4310	2310	901	787
13	602	506	459	387	373	366	861	2620	4150	2170	886	729
14	608	524	387	381	378	370	783	3470	3490	1920	861	690
15	603	549	458	394	373	364	750	3480	3210	1790	846	680
16	591	571	458	402	372	369	692	3070	3760	1700	848	658
17	580	567	407	408	364	391	639	3330	3910	1630	822	656
18	592	543	405	405	368	429	616	4190	3970	1790	811	767
19	585	496	376	386	364	430	607	4470	3970	1770	832	794
20	587	421	349	357	370	385	588	4350	4660	1660	791	715
21	851	423	360	367	355	384	597	4440	5030	1530	778	679
22	923	467	361	380	360	388	605	4450	5300	1470	762	669
23	724	516	373	393	362	397	603	4540	4690	1380	789	738
24	612	533	409	395	372	384	577	4410	3960	1330	833	728
25	617	502	414	398	373	388	647	4290	3550	1330	775	700
26	648	484	418	383	377	364	608	4050	3230	1250	756	676
27	612	470	423	385	387	383	589	4110	2970	1200	761	658
28	610	436	381	386	389	353	567	4620	2890	1160	738	643
29	589	408	399	392	381	364	574	4570	2990	1130	723	631
30	603	388	421	406	---	361	579	4440	3320	1140	708	615
31	609	---	415	396	---	394	---	4420	---	1150	697	---
TOTAL	18871	15633	13587	12163	10989	11649	17955	97173	125830	61450	27314	20881
MEAN	609	521	438	392	379	376	599	3135	4194	1982	881	696
MAX	923	610	518	422	411	430	861	4620	5300	3590	1200	831
MIN	537	388	349	357	355	323	383	650	2890	1130	697	615
AC-FT	37430	31010	26950	24130	21800	23110	35610	192700	249600	121900	54180	41420

CAL YR 1975 TOTAL 414244 MEAN 1135 MAX 7180 MIN 310 AC-FT 821700
WTR YR 1976 TOTAL 433495 MEAN 1184 MAX 5300 MIN 323 AC-FT 859800

06186000 YELLOWSTONE LAKE AT BRIDGE BAY, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°32'00", long 110°26'20", Yellowstone National Park, Hydrologic Unit 10070001, at marina at Bridge Bay, 3.7 mi (6.0 km) southwest of lake outlet.

DRAINAGE AREA.--1,006 mi² (2,606 km²).

PERIOD OF RECORD.--October 1921 to current year (gage heights only). Prior to October 1966, published as Yellowstone Lake at Lake Hotel.

REVISED RECORDS.--WSP 1916: Drainage area.

GAGE.--Nonrecording gage usually read once daily except during winter months, when it is read occasionally. Datum of gage is 7,729.45 ft (2,355.936 m) above mean sea level. Prior to Oct. 1, 1966, nonrecording gages at Lake Hotel dock at same datum.

REMARKS.--No regulation.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 7.34 ft (2.237 m) June 28, 30, 1974; minimum observed, -0.1 ft (-0.03 m) Dec. 7, 8, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum gage height observed, 5.68 ft (1.731 m) July 7; minimum observed, 1.18 ft (0.360 m) Feb. 25.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---				---	---	---	---	---	5.48	---	3.15
2	---				---	---	1.26	---	---	5.48	4.64	3.09
3	---				---	1.42	---	---	---	5.54	4.66	3.11
4	---				---	---	---	---	---	---	---	3.07
5	---				---	---	---	---	---	5.61	4.52	3.01
6	---				---	---	---	---	---	5.59	4.48	---
7	---				---	---	---	---	5.08	5.67	4.33	2.94
8	---				---	---	---	1.42	5.04	5.64	4.28	2.91
9	---				---	---	1.27	---	5.14	5.60	4.25	2.89
10	---				---	1.26	---	---	5.28	5.63	4.17	2.84
11	---				1.34	---	---	---	---	---	4.08	2.82
12	---				---	---	---	---	5.28	5.62	4.03	---
13	---				---	---	---	---	---	5.59	3.97	---
14	---				---	---	---	1.78	5.57	5.55	3.96	---
15	---				---	---	---	---	---	5.54	3.96	---
16	---				---	---	---	---	5.44	5.46	3.86	---
17	---				---	---	---	---	5.48	5.38	3.79	2.72
18	---				1.34	---	---	---	---	5.38	3.77	---
19	---				---	---	---	---	---	5.38	3.68	---
20	---				---	---	---	---	---	5.32	3.67	---
21	---				---	---	---	---	5.52	5.25	3.60	---
22	---				---	---	---	---	5.54	5.20	---	---
23	---				---	---	---	---	5.53	5.16	3.66	---
24	---				---	---	---	---	5.56	5.08	3.48	---
25	---				1.18	---	---	---	5.56	---	3.47	---
26	---				---	1.24	---	---	5.48	4.96	3.44	---
27	---				---	---	---	---	5.48	4.87	3.38	---
28	---				---	---	---	---	---	4.86	3.32	---
29	---				---	---	---	---	---	4.82	---	2.42
30	2.00				---	---	---	---	5.45	4.78	3.22	2.44
31	---				---	1.26	---	---	---	4.67	3.20	---
MEAN	---				---	---	---	---	---	---	---	---
MAX	---				---	---	---	---	---	---	---	---
MIN	---				---	---	---	---	---	---	---	---

06186500 YELLOWSTONE RIVER AT YELLOWSTONE LAKE OUTLET, YELLOWSTONE NATIONAL PARK

LOCATION.--Lat 44°34'03", long 110°22'48", Yellowstone National Park, Hydrologic Unit 10070001, on left bank 450 ft (137 m) downstream from Fishing Bridge, 0.2 mi (0.3 km) downstream from outlet of Yellowstone Lake, and at mile 594.8 (957.0 km).

DRAINAGE AREA.--1,006 mi^3 (2,606 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1922 to current year (prior to October 1926, gage heights only). Monthly discharge only for winter periods in water years 1927-30, 1932-33, 1935-38, 1940, 1942-46, published in WSP 1309; figures of daily discharge for these months published in WSP 646, 666, 686, 701, 731, 746, 786, 806, 826, 856, 896, 956, 976, 1006, 1036, and 1056 have been found to be unreliable and should not be used.

REVISED RECORDS.--WSP 1309: See PERIOD OF RECORD. WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,727.77 ft (2,355.424 m) above mean sea level. Prior to Oct. 2, 1928, nonrecording gage at site 450 ft (137 m) upstream at datum 1.07 ft (0.326 m) higher.

REMARKS.--Records good except those for winter period, which are fair. No artificial regulation.

AVERAGE DISCHARGE.--50 years (water years 1927-76), 1,339 ft^3/s (37.92 m^3/s), 18.08 in/yr (459 mm/yr), 970,100 acre-ft/yr (1.19 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,170 ft^3/s (260 m^3/s) June 28, 1974, gage height, 8.20 ft (2.499 m); minimum daily, 130 ft^3/s (3.68 m^3/s) Mar. 1-31, 1935, but may have been less during periods of ice effect; minimum gage height, 1.45 ft (0.442 m) Dec. 17, 1936.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,460 ft^3/s (155 m^3/s) July 9, gage height, 6.62 ft (2.018 m); minimum daily, 560 ft^3/s (15.9 m^3/s) Feb. 5, Mar. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1230	914	680	630	600	590	605	640	3170	5120	3770	1800
2	1220	900	690	630	590	570	615	640	3320	5220	3710	1770
3	1190	888	680	630	580	560	610	640	3500	5260	3640	1720
4	1190	876	660	630	570	590	605	650	3710	5300	3560	1680
5	1160	870	660	600	560	600	600	660	3900	5320	3460	1630
6	1130	864	660	610	570	600	595	665	4120	5360	3340	1620
7	1130	864	660	620	590	600	595	670	4320	5360	3230	1600
8	1110	858	660	630	590	600	585	681	4540	5380	3140	1560
9	1080	852	650	630	590	600	590	697	4680	5380	3050	1530
10	1070	852	650	630	590	600	595	725	4870	5380	2950	1510
11	1050	834	640	640	600	610	585	769	5060	5380	2870	1490
12	1040	816	640	640	590	635	585	804	5220	5380	2800	1490
13	1040	798	640	640	580	630	585	828	5320	5340	2720	1450
14	1040	792	630	630	580	630	585	888	5300	5300	2640	1420
15	1030	792	610	620	580	630	590	949	5280	5200	2590	1420
16	1020	798	580	630	580	625	585	1020	5280	5100	2550	1390
17	998	786	600	630	580	620	590	1100	5240	5040	2490	1380
18	984	775	640	630	580	620	590	1190	5260	5020	2410	1380
19	984	769	640	630	580	625	590	1330	5200	4980	2370	1340
20	970	758	640	630	590	625	595	1460	5160	4850	2290	1330
21	970	730	640	630	590	620	605	1580	5180	4760	2240	1310
22	977	700	630	630	590	620	610	1690	5280	4660	2170	1300
23	970	700	620	620	590	620	620	1840	5320	4550	2160	1300
24	963	700	620	620	600	620	620	2020	5340	4460	2120	1270
25	963	690	620	600	590	635	620	2180	5320	4370	2080	1260
26	970	690	630	610	590	635	630	2290	5200	4270	2030	1230
27	984	680	630	610	590	630	645	2390	5140	4180	1970	1220
28	977	680	630	610	590	630	645	2540	5080	4120	1920	1200
29	963	680	630	610	590	620	645	2680	5020	4030	1890	1180
30	942	670	630	610	---	615	645	2870	5060	3920	1850	1160
31	914	---	630	600	---	610	---	3010	---	3820	1830	---
TOTAL	32259	23576	19820	19310	16990	19015	18160	42096	144390	151810	81840	42940
MEAN	1041	786	639	623	586	613	605	1358	4813	4897	2640	1431
MAX	1230	914	690	640	600	635	645	3010	5340	5380	3770	1800
MIN	914	670	580	600	560	560	585	640	3170	3820	1830	1160
CFSM	1.03	.78	.64	.62	.58	.61	.60	1.35	4.78	4.87	2.62	1.42
IN.	1.19	.87	.73	.71	.63	.70	.67	1.56	5.34	5.61	3.03	1.59
AC-FT	63990	46760	39310	38300	33700	37720	36020	83500	286400	301100	162300	85170

CAL YR 1975 TOTAL 540609 MEAN 1481 MAX 6360 MIN 370 CFSM 1.47 IN 19.99 AC-FT 1072000
WTR YR 1976 TOTAL 612206 MEAN 1673 MAX 5380 MIN 560 CFSM 1.66 IN 22.64 AC-FT 1214000

06186500 YELLOWSTONE RIVER AT YELLOWSTONE LAKE OUTLET, YELLOWSTONE NATIONAL PARK--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
SEP										
18...	1445	1380	115	7.7	14.5	8.1	83	23	0	5.3

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
SEP									
18...	2.3	9.6	.9	1.9	37	0	30	10	5.3

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED ORGANIC CARBON (C) (MG/L)
SEP									
18...	.6	10	64	.09	.07	.29	.01	0	1.6

06191500 YELLOWSTONE RIVER AT CORWIN SPRINGS, MT

LOCATION.--Lat 45°06'43", long 110°47'37", in SE¼NW¼ sec.30, T.8 S., R.8 E., Park County, Hydrologic Unit 10070002, on left bank 20 ft (6 m) downstream from highway bridge at Corwin Springs, 1.3 mi (2.1 km) upstream from Mol Herron Creek, 7 mi (11 km) northwest of Gardiner, and at mile 530.5 (853.6 km).

DRAINAGE AREA.--2,623 mi^2 (6,794 km^2).

PERIOD OF RECORD.--August 1889 to November 1893 (published as "at Horr"), September 1910 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1912. WSP 1509: 1889-94, 1911, 1913, 1916-18, 1920-21, 1925, 1927. WSP 1559: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,079.09 ft (1,548.107 m) above mean sea level. Aug. 12, 1889, to Nov. 4, 1893, nonrecording gages at site 2 mi (3 km) upstream at different datums. Sept. 2, 1910, to Apr. 19, 1935, nonrecording gages on bridge at present datum.

REMARKS.--Records good. Natural storage in Yellowstone Lake. Diversions for irrigation of about 960 acres (3.89 km^2) of which 40 acres (162,000 m^2) lies below station.

AVERAGE DISCHARGE.--70 years, 3,135 ft^3/s (88.8 m^3/s), 16.23 in/yr (412 mm/yr), 2,271,000 acre-ft/yr (2.80 km^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 32,000 ft^3/s (906 m^3/s) June 14, 15, 1918, gage height, 11.5 ft (3.51 m), from rating curve extended above 18,000 ft^3/s (510 m^3/s); minimum observed, 389 ft^3/s (11.0 m^3/s) Feb. 23, Mar. 5, 9, 1937, gage height, 0.05 ft (0.015 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 12,000 ft^3/s (340 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 5	0400	*19,200	544	8.33	2.539
June 21	0500	16,000	453	7.48	2.280

Minimum daily discharge, 610 ft^3/s (17.3 m^3/s) Dec. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1850	1630	1050	950	1040	1090	1090	1590	13300	13500	5590	2610
2	1820	1650	1090	880	1020	950	1080	1900	14400	13200	5670	2540
3	1800	1660	1400	900	1040	800	1030	2220	16400	12100	5200	2510
4	1770	1630	1410	1000	740	880	1070	2730	17300	11700	5260	2450
5	1800	1590	1420	1070	660	930	1100	2680	17900	11500	5020	2390
6	1750	1580	1370	1110	800	1000	1140	2580	17900	11400	4770	2330
7	1720	1640	1360	1110	930	1060	1210	2980	17300	11000	4590	2550
8	1800	1570	1350	1120	1040	1060	1330	3890	17700	10800	4410	2430
9	1770	1480	1330	1130	1050	1060	1480	5040	17800	10400	4280	2300
10	1750	1480	1320	1140	1030	1070	1480	5160	17700	10100	4210	2260
11	1750	1490	1320	1110	1020	1070	1520	6880	16900	9740	4090	2230
12	1760	1390	1340	1120	1040	930	1650	5840	15600	9370	3970	2390
13	1780	1440	1100	1140	1040	930	1810	5740	16400	9140	3870	2410
14	1790	1440	980	1120	1040	1040	1750	8260	14000	8590	3790	2250
15	1730	1470	800	1130	1030	1010	1710	9810	12300	8230	3680	2190
16	1730	1520	610	1140	1040	1020	1620	8050	13000	7930	3720	2150
17	1700	1520	700	1160	1030	1060	1500	8820	12900	7660	3590	2110
18	1720	1450	800	1180	1020	1100	1470	12000	12600	8350	3500	2130
19	1720	1350	1000	1130	1010	1140	1490	13900	12200	7990	3570	2590
20	1680	1250	1130	1060	1010	1010	1400	12900	13400	7630	3400	2370
21	1700	1240	1120	1070	968	1010	1400	13400	15100	7240	3290	2150
22	2000	1320	1140	1070	983	1060	1420	13600	15000	7070	3170	2080
23	1870	1430	1140	1100	998	1080	1450	13200	14000	6800	3190	2250
24	1670	1390	1180	1110	1020	1060	1400	12300	12400	6570	3220	2190
25	1650	1290	1180	1100	1020	1050	1500	12500	11800	6390	3090	2110
26	1730	1220	1180	1060	1050	1040	1510	12300	11000	6160	3010	2050
27	1730	1190	1170	1070	1040	1060	1450	12500	10600	6040	2940	2010
28	1720	1120	1120	1070	1060	1010	1440	14800	10800	5790	2860	1980
29	1680	1100	1120	1080	1070	998	1440	16000	11400	5620	2790	1960
30	1670	1070	1150	1090	---	1020	1460	15300	12000	5520	2710	1920
31	1690	---	1120	1060	---	1070	---	14700	---	5550	2670	---
TOTAL	54300	42600	35500	33580	28839	31668	42400	273570	431100	269080	119200	67890
MEAN	1752	1420	1145	1083	994	1022	1413	8825	14370	8680	3845	2263
MAX	2000	1660	1420	1180	1070	1140	1810	16000	17900	13500	5670	2610
MIN	1650	1070	610	880	660	800	1030	1590	10600	5520	2670	1920
CFSM	.67	.54	.44	.41	.38	.39	.54	3.36	5.48	3.31	1.47	.86
IN.	.77	.60	.50	.48	.41	.45	.60	3.88	6.11	3.82	1.69	.96
AC-FT	107700	84500	70410	66610	57200	62810	84100	542600	855100	533700	236400	134700

CAL YR 1975 TOTAL 1257115 MEAN 3444 MAX 19200 MIN 610 CFSM 1.31 IN 17.83 AC-FT 2493000
WTR YR 1976 TOTAL 1429727 MEAN 3906 MAX 17900 MIN 610 CFSM 1.49 IN 20.28 AC-FT 2836000

06205450 CLARKS FORK YELLOWSTONE RIVER AT MONTANA-WYOMING STATE LINE, NEAR COOKE CITY, MT

LOCATION.--Lat 44°57'28", long 109°48'21", Park County, WY, Hydrologic Unit 10070006, Shoshone National Forest, at bridge on U.S. Highway 12, 300 ft (91 m) upstream from Pilot Creek, 0.9 mi (1.4 km) downstream from Rock Creek, 1.8 mi (2.9 km) northwest of Crazy Creek Campground, and 7.5 mi (12.1 km) southeast of Cooke City, MT.

PERIOD OF RECORD.--Water years 1975-76.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	TOTAL CADMIUM (CD) (UG/L)
MAY 11...	1515	326	60	8.4	2.0	890	40	1	0	0	0	<10
JUN 03...	1330	803	50	7.1	5.0	520	--	0	--	0	--	<10
JUL 08...	1650	860	41	9.0	9.5	--	50	--	0	--	0	--
AUG 03...	1230	257	140	8.2	12.0	150	--	0	--	0	--	<10
SEP 08...	1030	84	70	7.0	8.5	210	10	0	0	0	0	<10

DATE	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
MAY 11...	0	0	0	10	6	1100	100	<100	1	0	0	30
JUN 03...	--	10	--	<10	--	730	--	<100	--	0	--	30
JUL 08...	0	--	0	--	6	--	80	--	1	--	0	--
AUG 03...	--	0	--	10	--	150	--	<100	--	0	--	10
SEP 08...	0	0	10	<10	1	190	10	<100	0	0	0	20

DATE	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
MAY 11...	10	.0	.0	0	0	<50	2	0	0	1.1	0	20
JUN 03...	--	.0	--	0	--	<50	--	0	--	--	0	--
JUL 08...	20	--	.5	--	0	--	0	--	0	--	--	0
AUG 03...	--	10	--	0	--	<50	--	0	--	--	0	--
SEP 08...	0	.0	.1	0	0	<50	0	0	0	--	20	10

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
MAY 11...	1515	326	2.0	44	39
JUN 03...	1300	803	5.0	18	39
JUL 08...	1650	860	9.5	18	42
AUG 03...	1245	257	12.0	7	4.9
SEP 08...	1030	84	8.5	4	.91

06206600 CLARKS FORK YELLOWSTONE RIVER ABOVE PAINT CREEK, NEAR CLARK, WY

LOCATION.--Lat 44°50'05", long 109°13'50", in SE¼SE¼NW¼ sec.14, T.56 N., R.103 W., Park County, Hydrologic Unit 10070006, at ford on private road, 1.2 mi (1.9 km) upstream from Paint Creek, 1.2 mi (1.9 km) downstream from Newmeyer Creek, and 6.2 mi (10.0 km) southwest of Clark.

PERIOD OF RECORD.--Water years 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	TOTAL CADMIUM (CD) (UG/L)
MAY 11...	1750	2640	140	9.2	6.0	3300	40	1	0	0	0	<10
JUN 03...	1840	5400	90	8.2	8.5	3200	--	0	--	0	--	<10
JUL 08...	1000	5190	75	7.0	11.0	--	60	--	0	--	0	--
AUG 03...	1400	1850	100	7.6	15.5	470	--	0	--	0	--	<10
SEP 08...	1515	487	185	8.0	13.5	1000	40	1	1	0	0	<10

DATE	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
MAY 11...	0	0	0	10	12	4600	90	<100	2	0	0	110
JUN 03...	--	0	--	<10	--	3000	--	<100	--	0	--	70
JUL 08...	0	--	0	--	3	--	120	--	0	--	0	--
AUG 03...	--	0	--	10	--	500	--	<100	--	0	--	10
SEP 08...	1	0	10	10	1	1800	80	<100	1	0	0	30

DATE	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
MAY 11...	20	.0	.0	0	1	<50	4	0	0	.9	30	30
JUN 03...	--	.0	--	0	--	<50	--	0	--	--	0	--
JUL 08...	20	--	1.0	--	0	--	0	--	0	--	--	10
AUG 03...	--	25	--	0	--	<50	--	0	--	--	0	--
SEP 08...	0	.0	.0	0	1	<50	1	0	0	--	0	0

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
MAY 11...	1750	6.0	2640	810	5830
JUN 03...	1840	8.5	5400	182	2650
JUL 08...	1000	11.0	5190	179	2510
AUG 03...	1400	15.5	1850	24	120

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT

LOCATION.--Lat 45°00'40", long 109°04'00", in E½NE¼ sec.31, T.9 S., R.22 E., Carbon County, Hydrologic Unit 10070006, on left bank 0.4 mi (0.6 km) upstream from county road bridge and Big Sand Coulee, 0.8 mi (1.3 km) north of Wyoming-Montana State line, 9.5 mi (15.3 km) southwest of Belfry, and at mile 78.5 (126.3 km).

DRAINAGE AREA.--1,154 mi^2 (2,989 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1921 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as Clarks Fork at Chance prior to October 1956 and as Clarks Fork Yellowstone River at Chance October 1956 to September 1968.

REVISED RECORDS.--WSP 1309: 1922(M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,980 ft (1,210 m), from topographic map. Prior to Nov. 15, 1934, nonrecording gage, and Nov. 15, 1934, to July 26, 1951, water-stage recorder at bridge 0.4 mi (0.6 km) downstream at different datum. July 27, 1951, to Sept. 30, 1953, water-stage recorder at present site at datum 0.98 ft (0.299 m) higher.

REMARKS.--Records good except those for November to April, which are fair. Diversions for irrigation of about 11,100 acres (44.9 km^2) above station.

AVERAGE DISCHARGE.--55 years, 959 ft^3/s (27.16 m^3/s), 694,800 acre-ft/yr (857 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,700 ft^3/s (360 m^3/s) July 6, 1975, gage height, 8.77 ft (2.673 m); minimum observed, 32 ft^3/s (0.91 m^3/s) Apr. 26, 1961, result of discharge measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,400 ft^3/s (153 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 10	0430	*7710	218	6.87	2.094
July 2	0500	6990	198	6.55	1.996

Minimum discharge, 83 ft^3/s (2.35 m^3/s) Feb. 4 (result of freezeup), gage height, 0.81 ft (0.247 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	162	434	373	265	292	220	260	718	4820	5690	1760	397
2	157	423	501	255	292	200	300	908	4870	6550	2010	375
3	157	434	514	260	281	195	310	1110	5500	5820	1860	363
4	151	428	462	270	149	190	300	1280	6240	5450	1700	364
5	149	423	447	270	130	200	300	1240	6590	5350	1460	350
6	136	406	427	270	150	210	320	1210	6780	5430	1300	349
7	132	406	429	280	190	220	360	1250	6910	5400	1200	384
8	149	428	434	290	220	230	400	1600	7010	5290	1100	427
9	165	412	438	310	270	235	470	2100	7020	5050	1030	384
10	159	357	442	310	310	245	580	2220	7190	5180	942	361
11	163	418	441	270	279	240	530	2860	6670	5090	869	342
12	170	357	414	280	301	230	560	2560	5590	4540	823	343
13	250	369	380	290	293	220	630	2290	4970	4230	781	357
14	295	395	320	280	277	230	700	3030	4160	3730	761	342
15	269	397	290	290	260	240	641	3810	3320	3260	722	328
16	285	406	270	300	257	253	634	3050	3120	2980	691	319
17	314	407	280	295	262	305	578	3000	3050	2820	657	321
18	325	410	290	290	260	327	524	3990	2740	2850	630	348
19	340	350	340	280	228	316	494	4710	2650	2930	618	745
20	314	290	348	290	263	260	478	4800	3150	2840	603	671
21	314	270	318	320	238	251	478	4920	4480	2530	584	532
22	428	250	362	330	239	258	467	5140	5160	2380	563	479
23	542	245	339	331	275	267	494	4910	4960	2290	541	601
24	456	240	342	319	264	268	483	4450	4040	2190	540	627
25	406	230	354	265	259	265	536	4550	3460	2110	540	555
26	461	220	361	230	261	260	669	4300	2880	2030	525	524
27	489	210	374	260	264	255	641	4230	2630	1950	507	491
28	467	200	313	337	275	250	584	4980	2790	1840	475	457
29	445	210	306	331	250	250	566	5590	3520	1650	438	426
30	439	230	354	325	---	250	608	5590	4400	1550	416	401
31	456	---	280	304	---	250	---	5440	---	1620	418	---
TOTAL	9145	10255	11543	8997	7289	7590	14895	101836	140670	112620	27064	12963
MEAN	295	342	372	290	251	245	497	3285	4689	3633	873	432
MAX	542	434	514	337	310	327	700	5590	7190	6550	2010	745
MIN	132	200	270	230	130	190	260	718	2630	1550	416	319
AC-FT	18140	20340	22900	17850	14460	15050	29540	202000	279000	223400	53680	25710

CAL YR 1975 TOTAL 439343 MEAN 1204 MAX 11100 MIN 132 AC-FT 871400
WTR YR 1976 TOTAL 464867 MEAN 1270 MAX 7190 MIN 130 AC-FT 922100

06207500 CLARKS FORK YELLOWSTONE RIVER NEAR BELFRY, MT--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road, 0.4 mi (0.6 km) downstream from discharge station, just upstream from Sand Coulee, 0.8 mi (1.3 km) north of Wyoming-Montana State line, 9.5 mi (15.3 km) southwest of Belfry, and at mile 78.1 (125.7 km).

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT											
01...	1230	162	11.5	170	22	47	13	12	.4	1.9	180
NOV											
05...	1220	417	8.0	130	18	35	10	9.9	.4	.9	130
DEC											
02...	0815	489	2.5	140	25	38	11	9.9	.4	1.4	140
JAN											
06...	0930	A270	.0	160	29	41	13	11	.4	1.2	160
FEB											
04...	0950	83	.0	180	32	49	14	14	.5	1.4	180
MAR											
09...	1645	295	5.5	160	35	43	13	13	.4	1.4	140
APR											
15...	1330	676	8.0	110	12	30	9.1	11	.5	1.2	120
MAY											
06...	1155	1320	8.0	100	2	29	7.8	11	.5	1.2	120
JUN											
04...	1315	6300	8.5	39	0	11	2.7	4.7	.3	.9	52
JUL											
07...	1300	5380	13.0	32	0	8.4	2.5	2.3	.2	.5	43
AUG											
03...	1120	1080	14.5	59	2	16	4.6	5.9	.3	2.3	69
SEP											
08...	1150	401	12.0	130	10	35	10	9.4	.4	1.2	140

A Daily mean discharge.

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT											
01...	0	148	43	1.8	.2	9.9	218	.30	95.4	.18	.00
NOV											
05...	3	112	28	1.8	.2	9.3	164	.22	185	.02	.04
DEC											
02...	0	115	42	2.1	.2	8.1	184	.25	243	.05	.03
JAN											
06...	0	131	46	1.7	.2	11	203	.28	148	.18	.02
FEB											
04...	0	148	55	3.5	.3	10	235	.32	52.7	.14	.02
MAR											
09...	6	125	63	1.7	.2	9.2	220	.30	175	.05	.02
APR											
15...	0	98	35	1.8	.2	12	158	.21	288	.05	.07
MAY											
06...	0	98	31	1.8	.1	12	151	.21	538	.07	.18
JUN											
04...	0	43	5.8	.0	.1	8.0	60	.08	1020	.05	.27
JUL											
07...	0	35	.0	1.9	.1	6.5	44	.06	639	.05	.11
AUG											
03...	0	57	13	.0	.1	6.5	86	.12	437	.79	.07
SEP											
08...	3	120	28	.0	.2	7.0	162	.22	175	.14	.00

06207507 BIG SAND COULEE ABOVE STATE DITCH, NEAR BADGER BASIN, WY

LOCATION.--Lat 44°55'30", long 109°00'38", in NW¼SE¼NE¼ sec.14, T.57 N., R.101 W., Park County, Hydrologic Unit 10070006, on left bank 1.8 mi (2.9 km) upstream from return from State ditch and 3.0 mi (4.8 km) east of Badger Basin.

DRAINAGE AREA.--98.3 mi² (254.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1973 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 4,150 ft (1,265 m), from topographic map.

REMARKS.--Records good except those for March, which are poor. No diversion above station. Natural flow of stream can be affected by release of wastewater from Heart Mountain Canal into headwaters.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 243 ft³/s (6.88 m³/s) Sept. 8, 1973, gage height, 4.89 ft (1.490 m), from rating curve extended above 10 ft³/s (0.283 m³/s) on basis of slope-area measurement of peak flow; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 69 ft³/s (1.95 m³/s) July 26, gage height, 2.28 ft (0.695 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5					0	0	1.6	0	.47	.51	1.2
2	3.2					0	0	.36	.91	.18	.11	.59
3	2.0					0	0	.47	2.2	.01	.04	.47
4	.86					0	0	.26	1.0	.02	18	.36
5	.47					0	0	.17	.27	0	2.3	.17
6	.04					0	0	.47	0	0	.69	0
7	0					0	0	.36	0	0	.21	0
8	0					0	0	.36	0	0	0	0
9	.31					0	0	.14	0	0	0	0
10	0					0	0	.05	0	0	.07	0
11	0					.50	0	.04	0	0	0	0
12	0					.30	0	.19	0	0	0	.06
13	.84					.20	0	0	0	0	0	2.2
14	12					.40	0	.26	12	0	0	1.0
15	6.6					.30	0	.36	10	0	0	1.0
16	2.0					1.5	0	.24	1.8	0	.13	.86
17	1.4					12	0	1.6	2.0	0	.07	.72
18	1.2					5.0	0	1.8	3.2	0	.15	1.0
19	.59					1.4	0	1.8	2.9	0	.13	1.0
20	.36					.19	2.0	1.8	2.2	0	.08	1.2
21	.47					0	2.5	.72	4.3	.50	.06	.59
22	1.2					0	1.2	.36	5.0	.01	.25	.47
23	2.7					0	.36	.17	10	0	.20	.36
24	1.4					0	.10	.36	8.4	0	.16	1.4
25	1.2					0	0	.11	2.9	0	.22	1.6
26	1.4					0	1.1	0	2.0	5.0	0	1.6
27	3.2					0	7.0	0	1.2	0	.27	1.6
28	3.5					0	14	0	1.2	0	.10	1.4
29	2.5					0	14	0	1.0	0	.72	1.2
30	2.2					0	9.2	0	1.0	0	.86	1.0
31	2.2					0	---	0	---	0	1.2	---
TOTAL	57.34					21.79	51.46	14.05	75.48	6.19	26.53	23.05
MEAN	1.85					.70	1.72	.45	2.52	.20	.86	.77
MAX	12					12	14	1.8	12	5.0	18	2.2
MIN	0					0	0	0	0	0	0	0
AC-FT	114					43	102	28	150	12	53	46

06207507 BIG SAND COULEE ABOVE STATE DITCH, NEAR BADGER BASIN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1973, March to October 1974, March to October 1975, March to September 1976.
SUSPENDED SEDIMENT DISCHARGE: May to October 1973, March to October 1974, March to October 1975, March to September 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum observed, 30.0°C Aug. 5, 1976; minimum observed, 2.0°C Oct. 27, 1973, Mar. 6, Apr. 5, 1975.
SEDIMENT CONCENTRATIONS: Maximum daily mean, not determined; minimum daily mean, no flow for many days during period.
SEDIMENT DISCHARGE: Maximum daily, 10,000 tons (9,070 tonnes) Sept. 8, 1973; minimum daily, 0 tons on many days.

EXTREMES FOR PERIOD OCTOBER 1975, MARCH TO SEPTEMBER 1976.--
WATER TEMPERATURES: Maximum observed, 30.0°C Aug. 5; minimum observed, 5.0°C Oct. 4, Apr. 28.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 43,500 mg/L Oct. 31; minimum daily mean, no flow for many days during period.
SEDIMENT DISCHARGE: Maximum daily, 3,040 tons (2,760 tonnes) June 14; minimum daily, 0 tons on many days during period.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM
MAR 18...	1235	7.5	5.6	21200	321	87	94	100
MAY 06...	0930	6.5	.59	41400	66	--	--	--

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
JUN 04...	1000	.72	15.5	30	32	56	95	98	98	100

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0					---	---	16.0	---	29.0	---	26.0
2	7.0					---	---	10.0	26.0	---	---	27.0
3	7.0					---	---	18.0	24.0	---	26.0	16.0
4	5.0					---	---	15.0	21.0	---	22.0	21.0
5	7.0					---	---	12.5	16.0	---	30.0	12.0
6	7.0					---	---	18.0	---	---	24.0	---
7	---					---	---	---	---	---	26.0	---
8	---					---	---	23.0	---	---	---	---
9	---					---	---	22.0	---	---	---	---
10	---					---	---	14.0	---	---	---	---
11	---					---	---	20.0	---	---	---	---
12	---					---	---	23.0	---	---	---	---
13	---					---	---	---	---	---	---	24.0
14	---					---	---	22.0	9.0	---	---	26.0
15	---					---	---	15.0	12.0	---	---	20.0
16	---					---	---	---	16.0	---	---	24.0
17	---					12.0	---	19.0	12.0	---	25.0	---
18	---					12.5	---	24.0	18.0	---	25.0	24.0
19	---					10.0	---	19.0	16.0	---	---	12.0
20	---					---	---	24.0	21.0	---	---	18.0
21	---					---	---	20.0	20.0	---	22.0	20.0
22	---					---	---	20.0	20.0	---	24.0	18.0
23	---					---	14.0	20.0	25.0	---	22.0	18.0
24	---					---	---	22.0	20.0	---	---	18.0
25	---					---	---	24.0	20.0	---	---	14.0
26	---					---	---	---	18.0	---	---	16.0
27	---					---	7.0	---	24.0	---	12.0	15.0
28	---					---	5.0	---	26.0	---	---	16.0
29	---					---	6.5	---	28.0	---	24.0	18.0
30	---					---	10.0	---	28.0	---	22.0	20.0
31	---					---	---	---	---	---	26.0	---
MONTH	---					---	---	---	---	---	---	---

06207507 BIG SAND COULEE ABOVE STATE DITCH, NEAR BADGER BASIN, WY--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3.5	245	2.3						
2	3.2	280	2.4						
3	2.0	150	.81						
4	.86	80	.19						
5	.47	75	.10						
6	.04	55	.01						
7	0	0	0						
8	0	0	0						
9	.31	70	.06						
10	0	0	0						
11	0	0	0						
12	0	0	0						
13	.84	117	.31						
14	12	9990	384						
15	6.6	14000	293						
16	2.0	3200	17						
17	1.4	610	2.3						
18	1.2	220	.71						
19	.59	115	.18						
20	.36	55	.05						
21	.47	85	.11						
22	1.2	110	.36						
23	2.7	955	9.8						
24	1.4	360	1.4						
25	1.2	310	1.0						
26	1.4	250	.94						
27	3.2	944	12						
28	3.5	6240	69						
29	2.5	2100	14						
30	2.2	2200	13						
31	2.2	2380	14						
TOTAL	57.34	---	839.03						

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1							0	0	0
2							0	0	0
3							0	0	0
4							0	0	0
5							0	0	0
6							0	0	0
7							0	0	0
8							0	0	0
9							0	0	0
10							0	0	0
11							.50	385	.52
12							.30	360	.29
13							.20	375	.20
14							.40	370	.40
15							.30	360	.29
16							1.5	670	2.7
17							12	13600	441
18							5.0	15000	202
19							1.4	10800	41
20							.19	425	.22
21							0	0	0
22							0	0	0
23							0	0	0
24							0	0	0
25							0	0	0
26							0	0	0
27							0	0	0
28							0	0	0
29							0	0	0
30							0	0	0
31							0	0	0
TOTAL							21.79	---	688.62

06207507 BIG SAND COULEE ABOVE STATE DITCH, NEAR BADGER BASIN, WY--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	0	0	0	1.6	28800	118	0	0	0
2	0	0	0	.36	9000	8.7	.91	431	1.9
3	0	0	0	.47	16400	21	2.2	900	5.3
4	0	0	0	.26	5700	4.0	1.0	390	1.1
5	0	0	0	.17	3300	1.5	.27	82	.10
6	0	0	0	.47	21900	28	0	0	0
7	0	0	0	.36	9500	9.2	0	0	0
8	0	0	0	.36	14800	14	0	0	0
9	0	0	0	.14	6000	2.7	0	0	0
10	0	0	0	.05	296	.06	0	0	0
11	0	0	0	.04	50	.01	0	0	0
12	0	0	0	.19	133	.09	0	0	0
13	0	0	0	0	0	0	0	0	0
14	0	0	0	.26	210	.15	12	41400	3040
15	0	0	0	.36	110	.11	10	25400	1270
16	0	0	0	.24	290	.19	1.8	1260	6.1
17	0	0	0	1.6	680	2.9	2.0	450	2.4
18	0	0	0	1.8	490	2.4	3.2	750	6.5
19	0	0	0	1.8	870	4.2	2.9	815	6.4
20	2.0	875	4.7	1.8	900	4.4	2.2	575	3.4
21	2.5	1100	7.4	.72	380	.74	4.3	660	7.7
22	1.2	560	1.8	.36	145	.14	5.0	640	8.6
23	.36	4800	4.7	.17	70	.03	10	1020	28
24	.10	410	.11	.36	220	.21	8.4	835	19
25	0	0	0	.11	83	.04	2.9	545	4.3
26	1.1	10300	31	0	0	0	2.0	360	1.9
27	7.0	10500	198	0	0	0	1.2	305	.99
28	14	26800	1200	0	0	0	1.2	250	.81
29	14	19900	900	0	0	0	1.0	190	.51
30	9.2	34100	939	0	0	0	1.0	150	.41
31	---	---	---	0	0	0	---	---	---
TOTAL	51.46	---	3286.71	14.05	---	222.77	75.48	---	4415.42

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	.47	125	.16	.51	4840	6.7	1.2	100	.32
2	.18	25	.01	.11	2030	.60	.59	80	.13
3	.01	29	0	.04	3870	1.8	.47	45	.06
4	.02	56	0	18	40100	2790	.36	40	.04
5	0	0	0	2.3	10700	120	.17	17	.01
6	0	0	0	.69	857	1.7	0	0	0
7	0	0	0	.21	225	.22	0	0	0
8	0	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0	0
10	0	0	0	.07	120	.02	0	0	0
11	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	.06	4650	.75
13	0	0	0	0	0	0	2.2	43500	323
14	0	0	0	0	0	0	1.0	9720	26
15	0	0	0	0	0	0	1.0	1900	5.1
16	0	0	0	.13	150	.05	.86	625	1.5
17	0	0	0	.07	200	.09	.72	360	.70
18	0	0	0	.15	166	.10	1.0	360	.97
19	0	0	0	.13	360	.13	1.0	550	1.5
20	0	0	0	.08	88	.02	1.2	340	1.1
21	.50	4500	6.1	.06	42	.02	.59	220	.35
22	.01	358	.01	.25	100	.08	.47	160	.20
23	0	0	0	.20	76	.07	.36	115	.11
24	0	0	0	.16	58	.03	1.4	1660	6.8
25	0	0	0	.22	80	.05	1.6	400	1.7
26	5.0	9500	128	0	0	0	1.6	340	1.5
27	0	0	0	.27	41	.05	1.6	370	1.6
28	0	0	0	.10	15	0	1.4	330	1.2
29	0	0	0	.72	55	.11	1.2	265	.86
30	0	0	0	.86	60	.14	1.0	250	.68
31	0	0	0	1.2	95	.31	---	---	---
TOTAL	6.19	---	134.28	26.53	---	2922.29	23.05	---	376.18
YEAR	275.89		12885.30						

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE

LOCATION.--Lat 45°00'17", long 109°03'29", in SE¼NE¼SW¼ sec.32, T.9 S., R.22 E., Carbon County, MT., Hydrologic Unit 10070006, on right bank 0.3 mi (0.5 km) north of Wyoming-Montana State line and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--134 mi^2 (347 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1973 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 4,000 ft (1,219 m), from topographic map.

REMARKS.--Records good. Natural flow of stream affected by transbasin diversions and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 365 ft^3/s (10.3 m^3/s) Sept. 9, 1973, gage height 4.75 ft (1.448 m), from rating curve extended above 100 ft^3/s (2.83 m^3/s) on basis of slope-area measurement of peak flow; minimum daily during periods of operation, 1.2 ft^3/s (0.034 m^3/s) Apr. 18, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 152 ft^3/s (4.30 m^3/s) July 26, gage height, 3.75 ft (1.143 m); minimum daily during period of operation, 1.6 ft^3/s (0.045 m^3/s) Apr. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75					2.3	1.9	5.0	47	87	77	63
2	72					2.2	2.0	5.3	55	91	90	52
3	72					2.2	2.1	18	64	91	84	50
4	75					2.1	2.1	20	67	93	101	48
5	70					2.0	2.1	33	61	91	108	50
6	70					2.0	2.2	58	50	77	107	53
7	66					2.0	2.2	57	56	64	112	52
8	71					2.0	2.2	62	62	61	107	56
9	66					1.9	2.2	86	69	57	100	60
10	69					1.9	2.2	82	73	62	89	55
11	72					1.8	2.1	78	80	65	80	50
12	78					2.2	2.1	75	81	60	80	53
13	106					2.3	2.0	75	81	48	72	56
14	104					2.2	2.0	80	90	49	73	56
15	100					2.3	1.7	87	110	48	72	58
16	101					2.4	1.6	85	103	54	75	60
17	93					9.3	1.8	64	107	62	71	60
18	90					17	1.8	51	97	69	66	67
19	97					4.5	1.7	53	101	67	65	94
20	94					2.6	1.7	45	113	64	64	106
21	86					2.5	2.4	33	119	60	65	97
22	100					2.3	2.3	33	103	53	66	94
23	101					2.3	2.0	41	90	55	69	93
24	84					2.2	1.9	39	77	61	72	107
25	78					2.2	1.8	43	67	76	78	110
26	90					2.1	2.0	41	64	82	81	110
27	97					2.0	3.7	38	62	81	82	108
28	98					2.0	12	44	71	77	90	106
29	96					2.0	13	48	76	69	90	107
30	94					2.0	9.7	48	87	66	84	107
31	96					2.0	---	50	---	67	67	---
TOTAL	2661					90.8	90.5	1577.3	2383	2107	2537	2238
MEAN	85.8					2.93	3.02	50.9	79.4	68.0	81.8	74.6
MAX	106					17	13	87	119	93	112	110
MIN	66					1.8	1.6	5.0	47	48	64	48
AC-FT	5280					180	180	3130	4730	4180	5030	4440

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to October 1973, March to October 1974, March to October 1975, March to September 1976.
SUSPENDED SEDIMENT DISCHARGE: May to October 1973, March to October 1974, March to October 1975, March to September 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 24.0°C July 5, 6, 11, 1973, July 19, 1974; minimum, 5.0°C Mar. 6, 27, 1975, Mar. 11, 1976.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 37,200 mg/L May 8, 1975; minimum daily mean, 2 mg/L Mar. 3, 7, 1976.
SEDIMENT LOADS: Maximum daily, 11,600 tons (10,500 tonnes) Oct. 31, 1974; minimum daily, 0.01 ton (0.01 tonne) Mar. 3, 7, 1976.

EXTREMES FOR PERIOD OCTOBER 1975, MARCH TO SEPTEMBER 1976.--
WATER TEMPERATURES: Maximum, 23.0°C July 24; minimum, 5.0°C Mar. 11.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 13,900 mg/L Apr. 29; minimum daily mean, 2 mg/L Mar. 3, 7.
SEDIMENT LOADS: Maximum daily, 965 tons (875 tonnes) June 15; minimum daily, 0.01 ton (0.001 tonne) Mar. 3, 7.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
JUL 07...	1100	73	160	17.0	61	0	18	3.8
AUG 03...	1040	81	220	15.5	--	--	--	--
SEP 08...	1040	58	300	11.5	140	10	38	10

DATE	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
JUL 07...	9.1	.5	1.0	92	75	15	1.1	.1	6.4
AUG 03...	--	--	--	--	--	--	--	--	--
SEP 08...	16	.6	2.1	154	126	37	2.0	.2	8.6

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
JUL 07...	101	.14	19.9	.05	.18	.27	.32	.06
AUG 03...	--	--	--	--	--	--	--	--
SEP 08...	192	.26	30.1	.53	.48	.21	.74	.08

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM
MAR								
18...	1510	3.0	17	6880	316	90	99	100

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
JUN							
04...	1200	71	13.0	4	8	42	58

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
JUN						
04...	59	61	64	70	78	100

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0					8.0	14.0	16.0	15.0	20.0	16.0	19.0
2	16.0					7.0	12.0	11.0	17.0	18.0	19.0	20.0
3	15.0					6.0	11.0	15.0	16.0	18.0	14.5	18.0
4	15.0					8.0	12.0	12.0	17.0	19.0	21.0	18.0
5	17.0					9.0	14.0	13.0	17.0	20.0	18.0	19.0
6	16.0					11.0	15.0	12.0	17.0	19.0	16.0	18.0
7	11.0					10.0	17.0	9.0	16.0	19.0	18.0	12.0
8	10.0					8.0	16.0	15.0	18.0	19.0	19.0	14.0
9	12.0					9.0	15.0	14.0	19.0	20.0	19.0	15.0
10	12.0					12.0	16.0	7.0	17.0	20.0	19.0	18.0
11	12.0					5.0	18.0	12.0	14.0	20.0	18.0	14.0
12	11.0					6.0	19.0	14.0	15.0	18.0	19.0	17.0
13	9.0					11.0	17.0	15.0	11.0	18.0	20.0	16.0
14	9.0					9.0	17.0	18.0	9.0	18.0	19.0	16.0
15	9.0					11.0	15.0	12.0	12.0	17.0	17.0	18.0
16	12.0					14.0	9.0	13.0	11.0	22.0	18.0	16.0
17	12.0					9.0	12.0	18.0	11.0	20.0	18.0	18.0
18	10.0					8.0	16.0	17.0	15.0	21.0	20.0	17.0
19	13.0					6.0	15.0	16.0	16.0	19.0	20.0	12.0
20	15.0					9.0	14.0	16.0	17.0	18.0	20.0	16.0
21	10.0					9.0	15.0	17.0	17.0	20.0	21.0	17.0
22	6.0					10.0	16.0	17.0	16.0	19.0	20.0	16.0
23	8.0					11.0	12.0	17.0	16.0	20.0	18.0	17.0
24	7.0					10.0	17.0	18.0	14.0	23.0	19.0	16.0
25	11.0					11.0	18.0	14.0	12.0	21.0	20.0	14.0
26	9.0					12.0	9.0	14.0	12.0	20.0	19.0	15.0
27	8.0					13.0	8.0	15.0	15.0	20.0	18.0	16.0
28	7.0					11.0	7.0	17.0	16.0	20.0	19.0	14.0
29	9.0					12.0	9.0	14.0	18.0	19.0	20.0	15.0
30	9.0					14.0	17.0	12.0	19.0	18.0	18.0	15.0
31	10.0					15.0	---	14.0	---	20.0	18.0	---
MONTH	11.0					10.0	14.0	14.5	15.0	19.5	18.5	16.0

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	75	55	11						
2	72	56	11						
3	72	60	12						
4	75	49	9.9						
5	70	45	8.5						
6	70	58	11						
7	66	50	8.9						
8	71	54	10						
9	66	48	8.6						
10	69	42	7.8						
11	72	42	8.2						
12	78	1360	286						
13	106	1950	558						
14	104	1490	418						
15	100	1230	332						
16	101	380	104						
17	93	132	33						
18	90	47	11						
19	97	55	14						
20	94	51	13						
21	86	42	9.8						
22	100	64	17						
23	101	73	20						
24	84	78	18						
25	78	58	12						
26	90	196	48						
27	97	560	147						
28	98	560	148						
29	96	260	67						
30	94	263	67						
31	96	281	73						
TOTAL	2661	---	2502.7						

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1							2.3	14	.09
2							2.2	4	.02
3							2.2	2	.01
4							2.1	3	.02
5							2.0	4	.02
6							2.0	3	.02
7							2.0	2	.01
8							2.0	10	.05
9							1.9	12	.06
10							1.9	8	.04
11							1.8	53	.26
12							2.2	70	.42
13							2.3	64	.40
14							2.2	15	.09
15							2.3	8	.05
16							2.4	13	.08
17							9.3	1950	159
18							17	5080	233
19							4.5	2480	30
20							2.6	1820	13
21							2.5	350	2.4
22							2.3	295	1.8
23							2.3	215	1.3
24							2.2	182	1.1
25							2.2	270	1.6
26							2.1	196	1.1
27							2.0	162	.87
28							2.0	48	.26
29							2.0	62	.33
30							2.0	30	.16
31							2.0	57	.31
TOTAL							90.8	---	447.87

06207510 BIG SAND COULEE AT WYOMING-MONTANA STATE LINE--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	1.9	49	.25	5.0	8960	121	47	395	50
2	2.0	42	.23	5.3	2500	36	55	120	18
3	2.1	30	.17	18	1620	79	64	126	22
4	2.1	16	.09	20	850	46	67	162	31
5	2.1	24	.14	33	1030	112	61	99	16
6	2.2	31	.18	58	1020	160	50	120	16
7	2.2	25	.15	57	480	74	56	167	25
8	2.2	13	.08	62	440	74	62	150	25
9	2.2	9	.05	86	740	172	69	181	34
10	2.2	12	.07	82	490	108	73	142	28
11	2.1	12	.07	78	360	76	80	171	37
12	2.1	15	.09	75	360	73	81	104	23
13	2.0	13	.07	75	210	43	81	96	21
14	2.0	12	.06	80	362	78	90	603	147
15	1.7	11	.05	87	473	111	110	3250	965
16	1.6	17	.07	85	196	45	103	450	125
17	1.8	32	.16	64	150	26	107	129	37
18	1.8	8	.04	51	192	26	97	114	30
19	1.7	10	.05	53	250	36	101	99	27
20	1.7	14	.06	45	178	22	113	112	34
21	2.4	75	.49	33	162	14	119	158	51
22	2.3	168	1.0	33	122	11	103	150	42
23	2.0	92	.50	41	137	15	90	115	28
24	1.9	48	.25	39	112	12	77	401	83
25	1.8	42	.20	43	131	15	67	425	77
26	2.0	28	.15	41	82	9.1	64	128	22
27	3.7	520	5.2	38	113	12	62	80	13
28	12	9040	327	44	199	24	71	80	15
29	13	13900	488	48	183	24	76	69	14
30	9.7	11800	309	48	166	22	87	69	16
31	---	---	---	50	442	60	---	---	---
TOTAL	90.5	---	1133.92	1577.3	---	1736.1	2383	---	2072

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	87	110	26	77	86	18	63	85	14
2	91	170	42	90	122	30	52	32	4.5
3	91	60	15	84	156	35	50	23	3.1
4	93	60	15	101	229	62	48	23	3.0
5	91	73	18	108	422	123	50	29	3.9
6	77	96	20	107	120	35	53	29	4.1
7	64	109	21	112	129	39	52	20	2.8
8	61	91	15	107	106	31	56	78	12
9	57	98	15	100	61	16	60	107	17
10	62	129	22	89	59	14	55	97	14
11	65	106	19	80	68	15	50	52	7.0
12	60	161	26	80	72	16	53	56	8.0
13	48	118	15	72	64	12	56	144	22
14	49	105	14	73	48	9.5	56	138	21
15	48	102	13	72	53	10	58	96	15
16	54	89	13	75	43	8.7	60	88	14
17	62	116	19	71	47	9.0	60	73	12
18	69	135	25	66	64	11	67	89	16
19	67	90	16	65	78	14	94	357	98
20	64	81	14	64	71	12	106	222	64
21	60	80	13	65	46	8.1	97	81	21
22	53	102	15	66	69	12	94	64	16
23	55	60	8.9	69	86	16	93	57	14
24	61	105	17	72	62	12	107	72	21
25	76	151	31	78	73	15	110	88	26
26	82	626	160	81	50	11	110	91	27
27	81	430	94	82	31	6.9	108	56	16
28	77	150	31	90	33	8.0	106	51	15
29	69	76	14	90	44	11	107	47	14
30	66	65	12	84	37	8.4	107	60	17
31	67	81	15	67	57	10	---	---	---
TOTAL	2107	---	793.9	2537	---	638.6	2238	---	542.4
YEAR	13684.6		9867.49						

06218500 WIND RIVER NEAR DUBOIS, WY

LOCATION.--Lat 43°34'43", long 109°45'33", in NW¼NE¼ sec.25, T.42 N., R.108 W., Fremont County, Hydrologic Unit 10080001, on left bank 2.5 mi (4.0 km) upstream from Warm Springs Creek and 7.0 mi (11.3 km) northwest of Dubois.

DRAINAGE AREA.--232 mi² (601 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,188.71 ft (2,191.119 m) above mean sea level (levels by Bureau of Reclamation).

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 2,300 acres (9.31 km²) of which about 110 acres (45 hm²) lies below station.

AVERAGE DISCHARGE.--31 years, 182 ft³/s (5.154 m³/s), 131,900 acre-ft/yr (163 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft³/s (54.9 m³/s) June 8, 1972, gage height, 5.48 ft (1.670 m); maximum gage height, 5.66 ft (1.725 m) June 2, 1956; minimum daily discharge, 30 ft³/s (0.85 m³/s) Dec. 12, 1949, Jan. 5, 1950, Nov. 20, 1957.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 850 ft³/s (24.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 7	0200	*1,320	37.4	4.89	1.490
June 21	0600	1,070	30.3	4.60	1.402
July 2	0500	923	26.1	4.41	1.344

Minimum daily discharge, 52 ft³/s (1.47 m³/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	106	81	58	61	62	72	148	922	815	333	144
2	95	105	83	56	60	60	78	174	966	862	329	142
3	95	104	86	57	59	59	84	189	1010	756	292	138
4	93	100	86	56	58	59	90	213	1030	762	263	135
5	93	98	85	56	55	59	97	207	1060	769	250	133
6	93	100	84	57	52	62	105	228	1130	787	231	133
7	93	98	87	57	55	66	118	219	1210	773	220	147
8	104	95	86	57	59	67	132	289	1170	779	210	135
9	98	96	86	57	63	67	144	339	1110	765	204	128
10	109	93	83	58	64	67	154	380	1120	744	198	125
11	104	91	80	60	65	66	165	477	1050	712	192	124
12	127	90	78	60	64	64	178	396	876	641	189	128
13	139	87	77	58	64	63	160	390	782	622	186	129
14	121	88	75	58	63	63	148	536	654	537	185	135
15	112	90	73	59	62	63	139	653	591	489	177	144
16	115	92	71	61	60	64	125	479	598	468	188	142
17	110	91	69	61	60	65	112	522	571	454	175	138
18	115	90	67	60	59	67	106	729	661	462	172	154
19	111	87	66	60	59	72	107	823	732	459	187	170
20	113	83	66	59	58	71	104	812	776	425	168	158
21	113	84	67	60	59	72	113	895	927	403	161	141
22	121	85	68	61	60	73	125	918	910	377	161	138
23	110	87	68	62	60	73	130	894	854	372	164	151
24	98	88	67	61	60	72	121	834	733	350	183	135
25	96	87	66	60	62	71	141	823	664	352	164	133
26	100	86	68	59	64	71	133	778	602	365	159	131
27	107	84	67	60	64	71	124	842	573	327	156	130
28	110	80	66	61	63	70	111	943	592	313	155	126
29	115	76	65	62	63	70	110	910	638	293	153	121
30	121	78	64	63	---	69	121	957	691	279	153	118
31	113	---	61	62	---	70	---	963	---	275	148	---
TOTAL	3339	2719	2296	1836	1755	2068	3647	17960	25203	16787	6106	4106
MEAN	108	90.6	74.1	59.2	60.5	66.7	122	579	840	542	197	137
MAX	139	106	87	63	65	73	178	963	1210	862	333	170
MIN	93	76	61	56	52	59	72	148	571	275	148	118
AC-FT	6620	5390	4550	3640	3480	4100	7230	35620	49990	33300	12110	8140

CAL YR 1975 TOTAL 77074 MEAN 211 MAX 1480 MIN 47 AC-FT 152900
WTR YR 1976 TOTAL 87822 MEAN 240 MAX 1210 MIN 52 AC-FT 174200

YELLOWSTONE RIVER BASIN
06218500 WIND RIVER NEAR DUBOIS, WY--Continued
WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-48, 1950-51, 1953, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
09...	1300	83	--	2.5	1	10.7	2	71	0
NOV									
03...	1100	87	--	1.5	2	10.9	10	69	0
DEC									
10...	1030	A83	--	1.0	1	10.4	11	75	0
JAN									
08...	1015	A57	--	.0	1	10.6	7	67	0
FEB									
03...	1015	A59	--	.0	1	10.5	6	85	0
MAR									
15...	1015	A63	--	.0	2	10.4	2	83	0
APR									
14...	1030	A148	--	2.0	10	10.2	--	86	0
MAY									
04...	1100	240	--	4.0	35	10.4	38	87	0
JUN									
04...	1015	1010	--	6.0	--	11.0	5	38	0
JUL									
06...	1150	815	80	10.0	15	9.4	91	46	0
26...	1200	371	--	11.0	4	11.0	72	48	0
SEP									
07...	1440	149	--	11.0	2	8.0	37	61	0

A Daily mean discharge.

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT									
09...	21	4.4	7.6	.4	1.9	98	0	80	6.6
NOV									
03...	20	4.8	9.4	.5	1.6	98	0	80	9.9
DEC									
10...	21	5.5	8.2	.4	2.6	100	0	82	9.1
JAN									
08...	19	4.7	9.4	.5	1.9	100	0	82	4.1
FEB									
03...	24	6.0	9.4	.4	2.3	110	0	90	9.1
MAR									
15...	24	5.6	9.4	.4	1.2	120	0	98	10
APR									
14...	25	6.0	11	.5	2.8	120	0	98	13
MAY									
04...	24	6.7	12	.6	2.1	120	0	98	12
JUN									
04...	11	2.5	5.9	.4	1.6	57	0	47	6.6
JUL									
06...	13	2.9	1.8	.1	1.4	56	0	46	4.9
26...	13	3.7	5.9	.4	2.3	67	0	55	6.6
SEP									
07...	17	4.5	7.0	.4	1.6	87	0	71	3.3

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT								
09...	.0	.2	26	116	.16	26.0	.00	.08
NOV								
03...	1.1	.2	23	108	.15	25.4	.00	.05
DEC								
10...	1.1	.3	26	123	.17	27.6	.05	.07
JAN								
08...	1.7	.2	26	116	.16	17.9	.05	.08
FEB								
03...	1.0	.2	27	135	.18	21.5	.00	.07
MAR								
15...	1.7	.2	26	135	.18	23.0	.00	.09
APR								
14...	1.8	.1	21	140	.19	55.9	.07	.07
MAY								
04...	1.8	.2	19	138	.19	89.4	.05	.11
JUN								
04...	.0	.1	18	74	.10	202	.07	.36
JUL								
06...	.0	.1	20	72	.10	158	.05	.10
26...	.0	.1	23	88	.12	88.2	.00	.09
SEP								
07...	.0	.2	24	101	.14	40.6	.00	.03

06220500 EAST FORK WIND RIVER NEAR DUBOIS, WY

LOCATION.--Lat 43°27'16", long 109°27'57", in SE¼SW¼NW¼ sec.34, T.6 N., R.6 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 1.0 mi (1.6 km) upstream from mouth and 9.9 mi (15.9 km) southeast of Dubois.

DRAINAGE AREA.--427 mi² (1,106 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1950 to September 1957, October 1975 to September 1976. Prior to October 1953, published as North Fork Wind River near Dubois.

GAGE.--Water-stage recorder. Altitude of gage is 6,440 ft (1,963 m), from topographic map. Prior to Sept. 30, 1957, at site 500 ft (152 m) upstream at same datum.

REMARKS.--Records fair except those for winter period and periods of no gage-height record, Oct. 1 to Nov. 19, Jan. 3 to Feb. 3, July 26 to Aug. 5, which are poor. Diversions for irrigation of about 2,000 acres (809 hm²) above station.

AVERAGE DISCHARGE.--8 years, 295 ft³/s (8.35 m³/s), 213,700 acre-ft/yr (263 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,700 ft³/s (161 m³/s) June 26, 1954, gage height, 7.72 ft (2.353 m), from rating curve extended above 3,400 ft³/s (96.3 m³/s); maximum gage height, 9.27 ft (2.825 m) June 30, 1957; minimum daily discharge, 20 ft³/s (0.566 m³/s) Feb. 7, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,280 ft³/s (64.6 m³/s) about Aug. 1, gage height, 5.76 ft (1.756 m), from floodmark; minimum daily, 20 ft³/s (0.566 m³/s) Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	80	65	67	45	40	41	74	184	1120	1420	1450	129
2	75	65	68	44	40	39	80	308	1330	1310	850	121
3	80	65	70	44	38	37	74	380	1580	1010	560	116
4	75	60	72	44	25	37	89	355	1570	1160	480	116
5	80	60	72	46	23	37	107	237	1540	1160	430	113
6	75	60	70	45	21	40	191	370	1730	1230	386	108
7	80	55	73	44	20	42	167	249	1740	1240	320	116
8	80	55	76	44	30	45	164	508	1750	1230	246	113
9	80	55	76	44	35	49	257	628	1600	1200	165	110
10	80	55	72	45	39	52	237	628	1640	1250	214	127
11	85	55	70	45	40	52	308	764	1530	1260	201	127
12	90	55	68	44	40	51	365	457	1150	1100	201	121
13	100	55	65	42	39	50	281	556	904	1120	197	113
14	85	55	63	41	39	49	198	960	813	995	197	91
15	80	60	61	42	39	47	209	1030	883	883	197	82
16	80	60	60	43	38	46	167	570	827	890	210	76
17	75	60	59	43	37	48	123	674	771	883	197	67
18	75	60	58	43	37	50	117	1090	876	827	205	69
19	75	60	58	41	37	52	110	1140	953	862	214	71
20	75	60	58	40	36	56	94	1120	1160	764	193	67
21	80	62	58	40	36	58	103	1090	1470	750	193	58
22	80	64	59	40	37	58	117	1110	1450	757	197	68
23	70	68	59	41	37	57	115	981	1129	757	185	87
24	65	70	57	40	38	55	94	911	918	729	165	72
25	60	72	56	38	38	53	161	862	890	757	160	71
26	65	71	56	39	39	47	164	799	757	780	165	78
27	65	70	56	40	42	45	136	1010	764	760	155	89
28	70	68	54	41	43	42	126	1300	897	740	148	103
29	70	68	53	41	42	41	161	1250	1040	760	139	89
30	70	66	49	41	---	46	191	1190	1160	780	142	89
31	70	---	47	40	---	58	---	1240	---	860	135	---
TOTAL	2370	1854	1940	1310	1045	1480	4780	23951	35933	30384	8906	2855
MEAN	76.5	61.8	62.6	42.3	36.0	47.7	159	773	1198	980	287	95.2
MAX	100	72	76	46	43	58	365	1300	1750	1420	1450	129
MIN	60	55	47	38	20	37	74	184	757	729	135	58
AC-FT	4700	3680	3850	2600	2070	2940	9480	47510	71270	60270	17670	5660

WTR YR 1976 TOTAL 116808 MEAN 319 MAX 1750 MIN 20 AC-FT 231700

06220500 EAST FOR WIND RIVER NEAR DUBOIS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1975 to September 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	TEMPER- ATURE (DEG C)	TUR- BID- ITY (JTU)
DEC					
10...	1330	A72	200	1.0	--
FEB					
04...	1100	A25	205	.0	--
MAR					
16...	1055	A46	280	.0	--
APR					
05...	1330	76	255	8.0	--
15...	1530	174	155	9.5	--
MAY					
05...	1130	229	190	5.0	--
11...	1440	701	120	9.0	--
19...	1320	981	75	7.0	--
25...	1045	862	110	6.0	--
JUN					
04...	1200	1500	90	8.0	20
11...	1430	1370	78	8.0	--
AUG					
05...	1100	438	120	11.0	--
SEP					
09...	1015	118	205	6.5	--

A Daily mean discharge.

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV												
19...	1440	.5	60	16	2.6	--	--	--	--	--	--	--
DEC												
10...	1330	1.0	A72	33	6.4	--	--	--	--	--	--	--
JAN												
09...	1130	.0	A44	4	.45	--	--	--	--	--	--	--
FEB												
04...	1035	.0	A25	4	.25	--	--	--	--	--	--	--
MAR												
16...	1015	.0	A46	36	4.5	--	--	--	--	--	--	--
APR												
05...	1330	8.0	76	214	44	--	--	--	--	--	--	--
15...	1530	9.5	174	36	17	--	--	--	--	--	--	--
MAY												
05...	1130	5.0	229	32	20	--	--	--	--	--	--	--
11...	1440	9.0	701	313	592	--	--	--	--	--	--	--
19...	1320	7.0	981	282	747	7	13	53	69	93	100	--
25...	1045	6.0	862	76	177	--	--	--	--	--	--	--
JUN												
04...	1200	8.0	1500	434	1760	11	20	50	61	76	95	100
11...	1430	8.0	1370	256	947	--	--	--	--	--	--	--
JUL												
01...	1145	15.0	1260	190	646	--	--	--	--	--	--	--
AUG												
05...	1100	11.0	438	66	78	--	--	--	--	--	--	--
SEP												
09...	1015	6.5	118	25	8.0	--	--	--	--	--	--	--

A Daily mean discharge.

06221400 DINWOODY CREEK ABOVE LAKES, NEAR BURRIS, WY

LOCATION.--Lat 43°20'44", long 109°24'34", in SE¼SE¼ sec.1, T.4 N., R.6 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 0.5 mi (0.8 km) upstream from Upper Dinwoody Lake, 7.0 mi (11.3 km) west of Burris, and 17 mi (27 km) southeast of Dubois.

DRAINAGE AREA.--88.2 mi² (228 km²).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,500 ft (1,981 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station.

AVERAGE DISCHARGE.--19 years, 144 ft³/s (4.078 m³/s), 104,300 acre-ft/yr (129 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,400 ft³/s (39.6 m³/s) June 18, 1971, gage height, 4.57 ft (1.393 m); minimum daily, 2.2 ft³/s (0.062 m³/s) Mar. 4, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 700 ft³/s (19.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 7	0500	754	21.4	4.04	1.231	Aug. 1	2000	*917	26.0	4.19	1.277
July 11	0600	796	22.5	4.07	1.241						

Minimum daily discharge, 5.9 ft³/s (0.167 m³/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	25	13	9.6	8.2	6.4	10	29	332	469	695	213
2	51	25	14	9.2	8.2	6.4	9.8	34	397	526	714	216
3	52	25	15	9.1	8.0	6.3	9.8	38	501	436	492	222
4	51	23	16	9.4	7.8	6.8	10	41	522	445	384	222
5	46	22	16	9.2	6.5	7.5	11	40	570	480	366	213
6	46	20	15	8.8	5.9	7.8	13	46	598	515	328	214
7	46	18	16	8.4	6.0	7.9	13	55	639	555	301	216
8	43	16	16	8.1	6.1	8.3	14	56	567	673	276	176
9	35	15	16	8.0	6.2	8.5	15	65	584	677	253	137
10	48	16	15	8.0	6.3	8.9	13	76	566	706	243	133
11	44	17	15	8.6	6.4	8.9	14	127	549	730	222	139
12	41	18	15	8.4	6.3	9.0	16	149	397	730	219	186
13	40	19	15	8.0	6.5	9.2	17	127	310	700	222	167
14	37	20	15	8.0	6.4	9.4	16	170	252	579	228	131
15	35	20	14	8.4	6.2	9.3	17	239	213	505	234	110
16	38	20	13	8.7	6.2	9.9	18	212	206	486	216	120
17	35	19	12	8.4	6.3	10	18	186	196	475	181	114
18	35	17	12	8.2	6.4	12	18	232	209	529	207	122
19	33	16	13	8.0	6.3	11	17	326	241	586	243	110
20	32	15	13	8.0	6.2	10	16	356	267	551	246	102
21	31	15	13	8.0	6.3	9.8	16	350	379	502	264	95
22	30	16	13	8.2	6.4	9.8	16	390	445	487	268	95
23	25	17	13	8.4	6.5	9.5	16	343	399	475	305	91
24	21	17	13	8.2	6.6	10	16	288	312	469	323	83
25	21	16	13	8.0	6.8	9.1	17	263	261	478	288	77
26	22	15	14	7.6	6.8	9.9	22	244	222	524	284	75
27	24	14	13	7.9	6.9	9.1	23	262	194	534	240	70
28	25	13	12	8.0	6.6	9.1	24	341	196	484	204	64
29	26	12	12	8.2	6.5	9.2	22	402	241	438	204	62
30	27	12	11	8.2	---	10	24	387	325	420	207	59
31	26	---	10	7.9	---	10	---	377	---	415	213	---
TOTAL	1115	533	426	259.1	191.8	279.0	481.6	6251	11090	16579	9070	4034
MEAN	36.0	17.8	13.7	8.36	6.61	9.00	16.1	202	370	535	293	134
MAX	52	25	16	9.6	8.2	12	24	402	639	730	714	222
MIN	21	12	10	7.6	5.9	6.3	9.8	29	194	415	181	59
AC-FT	2210	1060	845	514	380	553	955	12400	22000	32880	17990	8000

CAL YR 1975 TOTAL 51987.1 MEAN 142 MAX 1020 MIN 3.0 AC-FT 103100
WTR YR 1976 TOTAL 50309.5 MEAN 137 MAX 730 MIN 5.9 AC-FT 99790

06222700 CROW CREEK NEAR TIPPERARY, WY

LOCATION.--Lat 43°34'37", long 109°15'42", in sec.20, T.7 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank just above Crow Creek Canyon, 2.0 mi (3.2 km) downsteam from Trail Creek, 5.0 mi (8.0 km) north of Tipperary, and 19 mi (31 km) north of Crowheart.

DRAINAGE AREA (REVISED).--30.2 mi² (78.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1962 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,600 ft (2,621 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. No diversion above station.

AVERAGE DISCHARGE.--14 years, 23.2 ft³/s (0.657 m³/s), 16,810 acre-ft/yr (20.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 568 ft³/s (16.1 m³/s) June 16, 1965, gage height, 5.20 ft (1.585 m), from rating curve extended above 220 ft³/s (6.23 m³/s) on basis of velocity-area study; maximum gage height, 5.64 ft (1.719 m) Jan. 14, 1975 (backwater from ice); minimum daily discharge, 0.50 ft³/s (0.014 m³/s) Feb. 2, 1970.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s (5.10 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 6	2200	250	7.08	4.54	1.384
Aug 1	0800	*313	8.86	4.82	1.469

Minimum daily discharge, 2.3 ft³/s (0.065 m³/s) Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	6.2	4.0	3.8	2.9	2.7	3.0	6.5	118	87	138	5.8
2	5.8	6.4	4.2	3.8	3.0	2.6	2.9	9.8	146	71	97	5.5
3	5.2	5.8	4.4	3.8	3.1	2.6	2.8	14	162	79	41	5.5
4	5.0	5.8	4.4	3.9	3.0	2.7	2.8	17	178	93	35	5.5
5	4.7	5.6	4.4	4.1	2.7	2.7	3.5	16	188	87	34	5.6
6	4.5	5.4	4.3	3.9	2.5	2.8	4.7	17	160	77	31	5.6
7	4.2	5.1	4.3	3.8	2.3	2.9	4.2	19	195	80	27	5.8
8	4.5	4.8	4.3	3.7	2.5	2.6	5.0	29	175	79	23	5.4
9	4.7	4.6	4.2	3.7	2.7	2.6	5.0	37	172	77	21	4.9
10	4.5	4.6	4.2	3.8	2.8	2.6	5.5	41	154	77	19	4.7
11	4.0	4.7	4.1	3.8	2.8	2.6	6.8	51	130	63	17	4.8
12	4.0	4.7	4.1	3.8	2.9	2.5	6.6	41	93	71	15	5.0
13	5.0	4.8	4.0	3.8	2.9	2.5	6.8	46	79	62	14	5.4
14	4.2	5.0	3.8	3.9	3.0	2.6	7.2	81	68	59	14	4.8
15	4.0	5.2	3.6	4.5	2.9	2.6	8.6	56	60	53	12	4.4
16	4.0	5.3	3.5	5.2	2.9	2.7	7.9	55	59	52	13	4.4
17	4.5	5.0	3.4	4.7	2.9	2.8	6.8	68	52	48	12	4.3
18	4.7	4.6	3.5	4.3	2.8	2.8	6.0	86	56	56	12	4.0
19	4.2	4.2	3.7	4.0	2.8	2.6	6.0	95	56	55	12	6.3
20	4.2	4.0	3.7	4.0	2.8	2.5	6.5	82	76	44	9.8	5.2
21	4.0	3.9	3.7	4.0	2.8	2.8	5.2	76	116	45	9.0	4.7
22	4.2	4.0	3.8	3.6	2.8	3.0	6.0	55	102	47	8.6	5.2
23	3.5	4.2	3.8	2.9	2.8	2.9	6.0	55	84	44	9.0	5.8
24	3.5	4.3	3.8	2.5	2.8	2.8	7.5	59	60	46	8.6	5.5
25	4.2	4.2	3.8	2.5	2.9	2.8	7.9	76	58	51	7.9	5.2
26	5.0	3.9	3.9	2.5	2.9	2.8	7.9	96	45	55	7.2	6.0
27	3.7	3.9	4.1	2.6	2.9	2.9	13	122	48	51	6.5	6.0
28	4.3	3.9	4.0	2.9	2.8	2.9	8.6	132	63	51	6.3	6.0
29	5.4	3.8	3.9	3.4	2.9	3.0	6.0	142	50	56	6.0	5.8
30	6.2	3.7	3.9	3.1	---	3.2	5.8	134	66	59	6.0	5.8
31	6.6	---	3.9	2.9	---	3.2	---	124	---	71	6.3	---
TOTAL	142.3	141.6	122.7	113.2	81.8	85.3	182.5	1938.3	3069	1946	678.2	158.9
MEAN	4.59	4.72	3.96	3.65	2.82	2.75	6.08	62.5	102	62.8	21.9	5.30
MAX	6.6	6.4	4.4	5.2	3.1	3.2	13	142	195	93	138	6.3
MIN	3.5	3.7	3.4	2.5	2.3	2.5	2.8	6.5	45	44	6.0	4.0
AC-FT	282	281	243	225	162	169	362	3840	6090	3860	1350	315

CAL YR 1975	TOTAL	8832.3	MEAN 24.2	MAX 268	MIN 1.7	AC-FT	17520
WTR YR 1976	TOTAL	8659.8	MEAN 23.7	MAX 195	MIN 2.3	AC-FT	17180

06222700 CROW CREEK NEAR TIPPERARY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)
OCT				
01...	1050	6.0	90	4.5
JAN				
22...	1100	A3.6	90	.0
MAR				
06...	0845	3.0	78	.0
APR				
10...	0900	6.5	85	.0
MAY				
13...	0925	38	41	2.5
25...	1400	89	65	7.0
JUN				
10...	1205	128	60	9.5
JUL				
01...	1245	66	65	12.0
AUG				
05...	1600	33	85	17.5
SEP				
17...	1055	4.5	60	7.5

A Daily mean discharge.

06224000 BULL LAKE CREEK ABOVE BULL LAKE, WY

LOCATION.--Lat 43°10'37", long 109°12'08", in NE¼SW¼ sec.2, T.2 N., R.4 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 1.2 mi (1.9 km) upstream from high-water line of Bull Lake and 9.0 mi (14.5 km) south of Crowheart.

DRAINAGE AREA.--187 mi² (484 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1941 to December 1953, October 1966 to current year. Monthly discharge only for some periods, published in WSP 1309. Prior to October 1950, published as "above Bull Lake Reservoir."

GAGE.--Water-stage recorder. Altitude of gage is 5,874 ft (1,790 m), from topographic map.

REMARKS.--Records good. No diversions above station.

AVERAGE DISCHARGE.--22 years (water years 1942-53, 1967-76), 306 ft³/s (8.666 m³/s), 221,700 acre-ft/yr (273 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,420 ft³/s (96.9 m³/s) June 18, 1971, gage height, 7.05 ft (2.149 m); minimum, 5.2 ft³/s (0.15 m³/s) Jan. 28, 1970, gage height, 1.44 ft (0.439 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,500 ft³/s (42.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 7	0930	*1,760	49.8	5.35	1.631

Minimum daily discharge, 14 ft³/s (0.40 m³/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	51	38	24	19	24	25	66	1040	1030	787	264
2	79	49	39	23	19	25	25	74	1120	1280	1080	258
3	77	48	37	24	18	27	24	85	1350	1170	895	252
4	76	46	38	24	16	29	25	96	1490	1070	703	247
5	73	45	37	24	15	29	27	100	1490	1110	592	243
6	71	44	36	24	14	29	33	144	1530	1160	521	239
7	69	42	37	23	15	28	37	140	1670	1180	458	240
8	72	42	37	23	17	27	36	154	1610	1240	409	228
9	70	30	36	24	20	27	39	188	1600	1240	371	210
10	70	34	35	24	20	27	35	229	1570	1240	343	189
11	68	35	35	25	21	27	38	328	1490	1260	320	175
12	67	32	34	26	20	26	43	317	1200	1240	300	185
13	66	43	35	26	19	26	43	313	902	1240	285	217
14	66	45	29	26	19	25	41	426	709	1110	280	222
15	64	44	29	28	18	24	43	615	558	948	281	207
16	61	41	28	25	19	24	46	516	490	843	286	196
17	59	38	26	25	20	26	49	490	453	793	270	185
18	58	38	27	25	18	27	48	609	458	799	249	179
19	57	36	27	23	18	27	46	805	462	941	273	193
20	56	24	27	24	20	22	42	928	476	955	314	194
21	53	30	28	24	19	23	42	989	686	862	328	186
22	50	33	28	22	21	23	42	1060	922	762	330	176
23	52	35	27	22	21	23	42	982	962	715	337	166
24	48	34	27	22	19	21	40	843	837	687	406	155
25	43	32	28	19	19	24	47	799	703	674	410	146
26	50	30	28	18	18	21	74	762	603	680	383	140
27	52	33	27	21	18	24	64	799	521	691	387	139
28	53	33	22	20	20	22	66	941	500	668	346	134
29	53	31	26	20	21	21	61	1150	580	615	299	129
30	54	26	25	21	---	23	61	1180	738	580	276	123
31	51	---	22	20	---	26	---	1090	---	569	267	---
TOTAL	1921	1124	955	719	541	777	1284	17218	28720	29352	12786	5817
MEAN	62.0	37.5	30.8	23.2	18.7	25.1	42.8	555	957	947	412	194
MAX	83	51	39	28	21	29	74	1180	1670	1280	1080	264
MIN	43	24	22	18	14	21	24	66	453	569	249	123
AC-FT	3810	2230	1890	1430	1070	1540	2550	34150	56970	58220	25360	11540

CAL YR 1975 TOTAL 103338 MEAN 283 MAX 2470 MIN 14 AC-FT 205000
WTR YR 1976 TOTAL 101214 MEAN 277 MAX 1670 MIN 14 AC-FT 200800

06224000 BULL LAKE CREEK ABOVE BULL LAKE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)
OCT				
02...	1220	81	50	7.5
DEC				
04...	1150	39	80	.5
JAN				
22...	1000	20	105	.0
MAR				
06...	0740	25	48	.0
APR				
10...	0725	36	55	6.0
MAY				
13...	0800	309	60	6.0
21...	1230	962	46	9.0
JUN				
10...	1300	1620	18	7.5
JUL				
02...	1210	1330	24	12.5
15...	1235	948	<50	15.0
AUG				
10...	1200	343	<50	14.5
SEP				
16...	1425	196	50	9.0

06225000 BULL LAKE CREEK NEAR LENORE, WY

LOCATION.--Lat 43°14'33", long 109°01'20", in NE¼NW¼ sec.17, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 700 ft (213 m) upstream from mouth, 2.8 mi (4.5 km) downstream from Bull Lake, and 8.5 mi (13.1 km) southeast of Lenore.

DRAINAGE AREA.--213 mi² (552 km²), of which 12 mi² (31 km²) is probably noncontributing.

PERIOD OF RECORD.--May 1918 to current year.

REVISED RECORDS.--WSP 1309: 1921(M, date only), 1925(M), 1926(M), 1930(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,654 ft (1,723 m), from topographic map. May 18, 1918, to Sept. 30, 1922, at site 10 ft (3 m) upstream at datum 0.86 ft (0.262 m) higher; Oct. 1, 1922, to Oct. 3, 1934, at present site at datum 2.00 ft (0.610 m) lower.

REMARKS.--Records good except those for winter period, which are poor. Flow completely regulated by Bull Lake 2.8 mi (4.5 km) upstream since April 1938. (See page 286.) Diversions above station for irrigation of about 730 acres (2.95 km²) below.

AVERAGE DISCHARGE.--58 years, 282 ft³/s (7.986 m³/s), 204,300 acre-ft/yr (252 hm³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,200 ft³/s (176 m³/s) Aug. 8, 1951, gage height, 7.09 ft (2.161 m), result of automatic spillway gates releasing on Bull Lake Dam, from rating curve extended above 2,000 ft³/s (56.6 m³/s) on basis of slope-area measurement of peak flow; minimum prior to construction of Bull Lake Dam not determined, probably occurred during period of ice effect in March 1933; no flow Feb. 28 to Apr. 7, 1937 (result of regulation).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,320 ft³/s (37.4 m³/s) July 31, gage height, 3.82 ft (1.164 m); minimum daily, 12 ft³/s (0.34 m³/s) May 3-5, 11-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	45	52	46	33	41	29	13	153	127	1260	1060
2	76	45	52	46	33	42	28	13	153	126	1180	1060
3	62	45	54	46	33	42	29	12	151	127	1100	1090
4	49	45	54	46	33	42	30	12	151	129	1090	1190
5	47	46	54	45	33	42	30	12	190	132	1080	1240
6	44	46	54	45	33	42	29	14	266	231	1060	1230
7	35	46	54	44	33	42	30	13	269	345	967	1220
8	34	46	54	44	33	42	30	13	269	408	872	1170
9	33	45	53	44	34	42	29	13	333	563	870	1130
10	33	47	52	42	34	42	29	13	468	832	969	1110
11	42	47	52	41	35	42	29	12	534	1060	1050	1110
12	58	47	52	39	36	42	29	12	540	1150	892	1100
13	64	47	52	38	36	42	29	12	545	1130	773	1080
14	56	47	52	37	37	42	26	73	545	1150	766	1080
15	44	47	52	37	37	42	22	140	478	1040	767	1060
16	43	47	52	37	37	42	23	138	358	843	775	1050
17	43	47	52	36	37	42	23	136	366	733	774	1040
18	43	49	52	36	37	42	22	136	298	731	771	1030
19	43	49	52	36	37	42	22	138	238	731	774	1020
20	42	49	52	36	37	42	22	138	235	785	851	989
21	42	49	51	36	37	42	20	138	235	855	1050	900
22	44	49	51	35	37	42	15	140	239	850	1150	817
23	45	50	51	35	37	42	15	146	241	852	1150	783
24	45	51	51	35	37	42	16	146	242	852	1150	778
25	45	51	51	35	37	40	17	146	244	854	1140	770
26	44	51	51	35	38	29	19	143	242	857	1120	766
27	44	51	50	34	39	28	17	143	245	849	1110	741
28	44	51	49	34	40	28	17	143	238	930	1170	683
29	44	52	48	34	40	28	17	146	126	1080	1220	623
30	44	52	47	34	---	29	16	148	133	1180	1150	554
31	44	---	46	34	---	29	---	151	---	1260	1070	---
TOTAL	1390	1439	1599	1202	1040	1218	709	2653	8725	22792	31121	29474
MEAN	44.8	48.0	51.6	38.8	35.9	39.3	23.6	85.6	291	735	1004	982
MAX	76	52	54	46	40	42	30	151	545	1260	1260	1240
MIN	14	45	46	34	33	28	15	12	126	126	766	554
AC-FT	2760	2850	3170	2380	2060	2420	1410	5260	17310	45210	61730	58460

CAL YR 1975 TOTAL 108078.9 MEAN 296 MAX 2400 MIN 4.9 AC-FT 214400
WTR YR 1976 TOTAL 103362.0 MEAN 282 MAX 1260 MIN 12 AC-FT 205000

06225500 WIND RIVER NEAR CROWHEART, WY

LOCATION.--Lat 43°14'33", long 109°00'35", in NW¼NW¼ sec.16, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank 0.9 mi (1.4 km) downstream from Bull Lake Creek and 9.0 mi (14.5 km) southeast of Crowheart.

DRAINAGE AREA.--1,891 mi² (4,898 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1945 to current year.

REVISED RECORDS.--WSP 1116: 1946-47. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,635 ft (1,718 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Some regulation by Bull Lake on Bull Lake Creek. (See page 286.) Diversions for irrigation of about 25,000 acres (101 km²) above station.

AVERAGE DISCHARGE.--31 years, 1,258 ft³/s (35.62 m³/s), 911,400 acre-ft/yr (1,120 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,000 ft³/s (368 m³/s) June 16, 1963, gage height, 9.16 ft (2.792 m); minimum daily, 190 ft³/s (5.38 m³/s) Feb. 6, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1927, reached a discharge of 13,000 ft³/s (368 m³/s); discharge measurement made by Bureau of Reclamation at site 1.0 mi (1.6 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,560 ft³/s (186 m³/s) June 7, gage height, 8.11 ft (2.472 m); minimum daily, 190 ft³/s (5.38 m³/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	473	545	375	346	279	350	341	595	3930	3360	3920	1780
2	545	538	415	347	275	332	369	687	4160	3830	4410	1750
3	530	531	465	342	269	304	352	815	4650	3330	3980	1740
4	514	531	495	341	228	295	358	879	5020	3310	3380	1830
5	508	517	480	342	192	282	386	815	5040	3420	3110	1870
6	508	511	480	348	190	314	446	925	5500	3670	2870	1860
7	502	511	484	348	210	340	478	870	5950	3800	2610	1870
8	503	504	484	357	240	350	465	982	5760	3930	2370	1830
9	524	462	484	358	295	358	517	1300	5480	4270	2250	1760
10	517	445	484	359	340	352	616	1390	5630	4570	2250	1740
11	538	450	465	352	360	358	640	1700	5380	4760	2240	1710
12	552	452	465	346	370	358	762	1580	4470	4670	2030	1700
13	640	452	442	340	368	341	789	1390	3690	4600	1860	1700
14	618	449	410	338	367	336	640	1970	3250	4260	1820	1660
15	574	459	395	346	358	336	595	2870	2770	3830	1780	1640
16	559	465	360	357	360	320	572	2280	2560	3440	1750	1600
17	559	465	370	358	360	347	498	2110	2390	3200	1740	1590
18	559	452	363	348	360	369	465	2790	2670	3060	1690	1580
19	574	432	356	330	360	360	452	3430	2700	3240	1710	1660
20	552	432	352	317	354	335	427	3660	2920	3190	1730	1620
21	545	415	347	310	350	336	421	3700	3550	3190	1900	1490
22	559	410	342	302	351	336	434	4050	4060	3070	1980	1430
23	581	420	340	305	352	347	452	4020	3770	2980	1970	1450
24	538	448	345	309	347	331	440	3650	3190	2870	2000	1440
25	498	440	355	290	347	341	465	3410	2780	2860	2030	1400
26	498	425	365	272	350	315	618	3190	2440	2960	1990	1380
27	545	405	368	274	351	310	538	3400	2230	2890	1940	1370
28	538	355	363	280	355	315	531	4010	2280	2890	1940	1290
29	524	315	359	280	352	310	531	4120	2480	2880	1940	1200
30	531	340	357	279	---	300	595	4200	2700	2860	1840	1120
31	552	---	352	280	---	315	---	4300	---	2880	1790	---
TOTAL	16758	13576	12517	10101	9290	10293	15193	75088	113400	108070	70820	48060
MEAN	541	453	404	326	320	332	506	2422	3780	3486	2285	1602
MAX	640	545	495	359	370	369	789	4300	5950	4760	4410	1870
MIN	473	315	340	272	190	282	341	595	2230	2860	1690	1120
AC-FT	33240	26930	24830	20040	18430	20420	30140	148900	224900	214400	140500	95330

CAL YR 1975 TOTAL 490901 MEAN 1345 MAX 9120 MIN 230 AC-FT 973700
WTR YR 1976 TOTAL 503166 MEAN 1375 MAX 5950 MIN 190 AC-FT 998000

06225500 WIND RIVER NEAR CROWHEART, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
OCT												
01...	1420	12.0	459	7	8.7	--	--	--	--	--	--	--
29...	1450	5.5	552	5	7.5	--	--	--	--	--	--	--
DEC												
05...	1230	1.0	480	16	21	--	--	--	--	--	--	--
FEB												
05...	1350	.0	192	2	1.0	--	--	--	--	--	--	--
MAR												
09...	1500	2.5	369	108	108	--	--	--	--	--	--	--
APR												
16...	1430	7.5	581	92	144	--	--	--	--	--	--	--
MAY												
11...	1345	9.0	1880	948	4810	26	56	98	100	--	--	--
13...	1355	14.0	1510	324	1320	--	--	--	--	--	--	--
20...	1500	11.5	3780	901	9200	14	25	56	72	91	100	--
28...	1500	13.0	4300	698	8100	20	41	77	92	100	--	--
JUN												
07...	1245	12.0	6510	1160	20400	16	30	63	80	97	100	--
09...	1730	13.5	5600	573	8660	10	24	48	63	85	98	100
29...	1330	15.5	2840	276	2120	--	--	--	--	--	--	--
AUG												
04...	1200	16.0	3420	211	1950	--	--	--	--	--	--	--
16...	1530	16.5	1760	26	124	--	--	--	--	--	--	--
SEP												
13...	1200	16.0	1710	37	171	--	--	--	--	--	--	--

06226000 WYOMING CANAL NEAR LENORE, WY

LOCATION.--Lat 43°13'45", long 108°53'40", in SE¼SE¼ sec.17, T.3 N., R.1 W., Fremont County, Hydrologic Unit 10080001, on right bank 3.3 mi (5.3 km) downstream from diversion dam on Wind River and 15 mi (24 km) southeast of Lenore.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to September 1945 (irrigation season only), May 1949 to current year. Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 5,560.85 ft (1,694.947 m) above mean sea level. May 1, 1941, to Sept. 30, 1945, nonrecording gage at site 3.2 mi (5.1 km) upstream at different datum. May 3, 1949, to Oct. 2, 1952, and Apr. 12 to May 15, 1971, water-stage recorder at site 3.0 mi (4.8 km) upstream at different datum.

REMARKS.--Records good. Flow used for irrigation and power development on Riverton project.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,830 ft³/s (51.8 m³/s) July 17, 19-21, 26-31, 1976; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52						0	433	1430	1590	1670	1140
2	0						0	456	1480	1590	1660	1130
3	0						0	472	1570	1560	1620	1110
4	0						0	519	1480	1580	1590	1180
5	0						0	551	1480	1590	1590	1220
6	0						0	556	1560	1600	1610	1220
7	0						0	592	1550	1610	1530	1210
8	0						0	609	1600	1620	1440	1190
9	0						0	773	1630	1630	1430	1140
10	0						0	916	1650	1640	1370	1120
11	0						0	1070	1660	1660	1290	1100
12	0						0	1140	1660	1670	846	1090
13	0						0	1020	1610	1730	678	1090
14	0						0	1100	1560	1770	652	1110
15	0						172	1330	1490	1780	654	1090
16	0						408	1360	1390	1820	637	1090
17	0						400	1340	1480	1830	625	1130
18	0						372	1440	1570	1820	622	1110
19	0						359	1500	1480	1830	620	1130
20	0						345	1560	1490	1830	793	1120
21	0						334	1590	1560	1830	1170	1020
22	0						340	1610	1550	1820	1180	941
23	0						361	1620	1530	1810	1180	945
24	0						360	1470	1520	1810	1190	972
25	0						348	1580	1490	1820	1230	933
26	0						443	1600	1400	1830	1280	919
27	0						429	1600	1370	1830	1270	910
28	0						415	1590	1370	1830	1260	840
29	0						416	1540	1430	1830	1270	777
30	0				---		438	1530	1550	1830	1220	423
31	0	---			---		---	1460	---	1830	1140	---
TOTAL	52	0	0	0	0	0	5940	35927	45590	53820	36317	31400
MEAN	1.68	0	0	0	0	0	198	1159	1520	1736	1172	1047
MAX	52	0	0	0	0	0	443	1620	1660	1830	1670	1220
MIN	0	0	0	0	0	0	0	433	1370	1560	620	423
AC-FT	103	0	0	0	0	0	11780	71260	90430	106800	72030	62280

CAL YR 1975 TOTAL 168261.00 MEAN 461 MAX 1650 MIN 0 AC-FT 333700
WTR YR 1976 TOTAL 209046.00 MEAN 571 MAX 1830 MIN 0 AC-FT 414600

06226000 WYOMING CANAL NEAR LENORE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Samples collected by Bureau of Reclamation.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM
APR										
30...	1445	10.0	457	1190	1470	--	--	--	--	--
MAY										
05...	0925	9.0	546	236	348	48	79	100	--	--
12...	0910	6.0	1160	425	1330	--	--	--	--	--
19...	0905	11.0	1550	1300	5440	--	--	--	--	--
26...	0900	9.0	1610	550	2390	--	--	--	--	--
JUN										
02...	0910	10.0	1450	513	2010	15	26	65	85	100
08...	1510	14.0	1660	847	3800	--	--	--	--	--
16...	1005	10.5	1480	365	1460	--	--	--	--	--
23...	1005	10.0	1550	359	1500	--	--	--	--	--
30...	1000	13.0	1550	193	808	--	--	--	--	--
JUL										
07...	1000	15.0	1630	289	1270	--	--	--	--	--
14...	0955	14.0	1770	178	851	--	--	--	--	--
21...	1000	15.0	1830	89	440	--	--	--	--	--
27...	1005	16.0	1830	73	361	--	--	--	--	--
AUG										
04...	1005	14.0	1590	207	889	--	--	--	--	--
11...	1435	17.0	1310	75	265	--	--	--	--	--
18...	1000	16.0	622	59	99	--	--	--	--	--
25...	1440	19.0	1230	70	232	--	--	--	--	--
SEP										
01...	1030	15.0	1140	48	148	--	--	--	--	--
08...	0950	13.0	1220	62	204	--	--	--	--	--
15...	0955	14.0	1100	24	71	--	--	--	--	--
23...	0950	12.0	936	19	48	--	--	--	--	--

06227500 WYOMING CANAL BELOW PILOT DIVERSION, NEAR MORTON, WY

LOCATION.--Lat 43°14', long 108°46', in NE¼ sec.20, T.3 N., R.1 E., Fremont County, Hydrologic Unit 10080005, at former gaging station, 0.2 mi (0.3 km) downstream from diversion to Pilot Butte powerplant and Pilot Butte Reservoir, and 1.5 mi (2.4 km) northwest of Morton.

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Samples collected and discharge furnished by Bureau of Reclamation.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM
APR								
30...	1445	9.5	109	170	50	--	--	--
MAY								
05...	1030	10.5	260	186	131	82	95	100
12...	1005	7.0	502	404	548	--	--	--
19...	0955	11.0	775	484	1010	--	--	--
26...	0955	9.0	607	296	485	--	--	--
JUN								
02...	1015	11.0	700	219	414	--	--	--
08...	1345	13.0	965	496	1290	--	--	--
16...	0905	11.0	750	123	249	--	--	--
23...	0905	11.0	544	218	320	--	--	--
30...	0900	13.0	755	115	234	--	--	--
JUL								
07...	0905	15.0	985	150	399	--	--	--
14...	0855	15.0	1100	165	490	--	--	--
21...	0900	15.0	985	143	380	--	--	--
27...	0900	15.0	915	120	296	--	--	--
AUG								
04...	0900	14.0	615	206	342	--	--	--
11...	1340	15.0	478	43	55	--	--	--
18...	0855	16.0	502	34	46	--	--	--
25...	1345	16.0	580	47	74	--	--	--
SEP								
01...	0925	15.0	568	34	52	--	--	--
08...	0900	14.0	560	39	59	--	--	--
15...	0900	14.0	534	9	13	--	--	--
23...	0855	13.0	478	8	10	--	--	--

06227600 WIND RIVER NEAR KINNEAR, WY

LOCATION.--Lat 43°08'34", long 108°42'32", in SW¼SE¼SW¼ sec.13, T.2 N., R.1 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on right bank, at upstream side of bridge on Wyoming State Secondary Highway 132, and 1.7 mi (2.7 km) southwest of Kinnear.

DRAINAGE AREA.--2,194 mi^2 (5,682 km^2).

PERIOD OF RECORD.--April 1974 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 5,280 ft (1,609 m), from topographic map.

REMARKS.--Records good. Some regulation by Bull Lake beginning in 1938 (see page 286) and Pilot Butte Reservoir beginning in 1926, combined capacity, 182,000 acre-ft (224 hm^3). Diversions above station for irrigation of about 102,100 acres (413 km^2) above and below station. The Wyoming Canal of the Riverton Project is the major diversion. This diversion began in 1926 and part of it can be returned to the river above station through Pilot Wasteway. Additional waste water returns to river below station through Fivemile and Muddy Creeks.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,540 ft^3/s (242 m^3/s) June 19, 1974, gage height, 7.23 ft (2.204 m); minimum daily during periods of operation, 55 ft^3/s (1.56 m^3/s) Apr. 21, 22, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,040 ft^3/s (143 m^3/s) June 7, gage height, 6.15 ft (1.875 m); minimum daily during period of operation, 55 ft^3/s (1.56 m^3/s) Apr. 21, 22.

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							346	126	2770	1520	2040	674
2							408	126	2830	2200	3260	641
3							408	297	3210	1920	2770	620
4							392	332	3720	1740	2020	620
5							432	718	3800	1810	1660	652
6							503	284	4020	2020	1410	641
7							641	368	4480	2220	1220	685
8							590	290	4350	2300	1050	685
9							652	522	4020	2610	925	652
10							729	560	4080	2990	899	652
11							685	621	3900	3280	1060	630
12							848	590	3100	3260	1250	620
13							951	339	2220	3080	1260	600
14							707	787	1790	2700	1340	570
15							353	1620	1360	2140	1310	560
16							156	1240	1100	1750	1280	540
17							126	788	860	1420	1240	476
18							81	1300	964	1280	1130	458
19							68	1940	1120	1410	1130	550
20							62	2240	1250	1380	1090	540
21							55	2320	1580	1410	788	503
22							55	2610	2360	1280	886	485
23							58	2770	2320	1140	886	485
24							60	2570	1770	1060	899	476
25							58	2120	1340	990	938	467
26							102	1770	1070	1060	812	458
27							140	1810	824	1090	752	467
28							108	2380	812	1050	707	458
29							108	2770	899	1020	752	416
30							122	2880	1000	990	707	630
31							---	3010	---	990	674	---
TOTAL							10004	42098	68919	55110	38145	16911
MEAN							333	1358	2297	1778	1230	564
MAX							951	3010	4480	3280	3260	685
MIN							55	126	812	990	674	416
AC-FT							19840	83500	136700	109300	75660	33540

06227700 LECLAIR CANAL NEAR RIVERTON, WY

LOCATION.--Lat 43°02'29", long 108°25'46", in SW¼SW¼SE¼ sec.20, T.1 N., R.4 E., Fremont County, Hydrologic Unit 10080001, at bridge on paved road, 0.5 mi (0.8 km) northeast of Mountain View Cemetary, 0.7 mi (1.1 km) downstream from U.S. Highway 26, and 2.6 mi (4.2 km) northwest of Riverton.

PERIOD OF RECORD.--July to September 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
JUL											
21...	1010	18.0	202	213	116	--	--	--	--	--	--
AUG											
03...	1100	17.0	69	1260	235	58	86	100	--	--	--
20...	1115	18.5	138	102	38	--	--	63	81	99	100
SEP											
03...	1110	17.5	150	154	62	--	--	23	37	79	100
20...	1130	13.5	104	41	12	--	--	67	78	98	100

06228000 WIND RIVER AT RIVERTON, WY

LOCATION.--Lat 43°00'38", long 108°22'32", in NE¼NW¼NW¼ sec.2, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, on left bank 265 ft (81 m) downstream from bridge on State Highway 789, 1.1 mi (1.8 km) southeast of post office in Riverton, and 1.5 mi (2.4 km) upstream from Little Wind River.

DRAINAGE AREA.--2,309 mi^2 (5,980 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to August 1906, August to December 1907, May to October 1908, May 1911 to current year. Monthly discharge only for some periods, published in WSP 1309. Published as Big Wind River near Arapahoe Agency 1906 and as Big Wind River near Riverton 1907-08.

REVISED RECORDS.--WSP 1509: 1935. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,903.56 ft (1,494.605 m) above mean sea level. See WSP 1729 for history of changes prior to Oct. 13, 1930. Oct. 13, 1930, to Apr. 15, 1968, water-stage recorder at site 280 ft (85 m) upstream at same datum. Apr. 16 to Nov. 17, 1968, water-stage recorder at site 880 ft (268 m) upstream at same datum. Nov. 18, 1968, to July 28, 1970, water-stage recorder at site 225 ft (69 m) upstream at same datum.

REMARKS.--Records fair except those for winter period, which are poor. Some regulation by Bull Lake beginning in 1938 (see page 286) and Pilot Butte Reservoir beginning in 1926, combined capacity, 182,000 acre-ft (224 hm^3). Diversions above station for irrigation of about 128,000 acres (518 km^2) above and below station. The Wyoming canal of the Riverton project is the major diversion. This diversion began in 1926 and part of it can be returned to the river above station through Pilot wasteway. Additional waste water returns to river below station through Fivemile and Muddy Creeks.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft^3/s (377 m^3/s) June 15, 1935, gage height, 8.15 ft (2.484 m), from rating curve extended above 7,200 ft^3/s (204 m^3/s); minimum daily, 10 ft^3/s (0.28 m^3/s) May 18, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,310 ft^3/s (122 m^3/s) June 7, gage height, 5.67 ft (1.728 m); minimum daily, 67 ft^3/s (1.90 m^3/s) Apr. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	311	589	388	346	280	450	300	202	2140	923	1380	340
2	388	564	447	342	275	450	328	175	1970	1480	2680	323
3	440	568	522	340	268	440	357	263	2240	1440	2640	287
4	414	569	542	341	250	418	326	359	2760	1150	1790	294
5	402	555	541	343	235	410	350	365	2920	1220	1380	344
6	406	553	530	349	221	405	386	290	3170	1300	1150	357
7	404	549	518	346	219	422	517	340	3640	1580	1020	353
8	411	556	516	355	262	445	497	215	3710	1610	841	392
9	452	525	520	358	329	475	512	294	3420	1870	704	383
10	487	481	528	359	377	495	600	402	3420	2220	595	379
11	529	441	511	351	391	488	559	253	3370	2510	722	379
12	588	445	497	343	402	470	647	392	2760	2530	861	370
13	659	460	460	340	409	460	783	144	1860	2370	923	370
14	685	480	432	335	430	452	728	82	1470	2050	1030	336
15	635	490	402	343	432	440	388	1000	1150	1770	1000	315
16	601	500	363	353	432	429	238	1250	916	1240	965	323
17	595	508	361	358	440	420	176	397	783	888	915	283
18	584	498	360	345	441	432	118	790	734	808	783	253
19	601	472	352	327	441	441	91	1430	944	821	752	344
20	588	448	350	312	430	434	81	1800	1030	895	736	411
21	575	434	345	309	419	421	74	1830	1270	988	436	397
22	565	428	340	300	422	412	67	2090	1970	874	473	370
23	607	441	338	302	440	390	68	2250	2030	783	498	344
24	587	468	341	308	445	356	71	2110	1510	716	478	344
25	519	476	357	292	443	320	70	1710	1080	629	519	327
26	483	452	363	280	450	322	77	1470	855	676	434	323
27	536	431	368	268	459	286	159	1380	625	752	374	357
28	590	410	363	279	453	287	156	1740	493	682	353	374
29	566	372	358	280	450	281	147	2170	505	664	406	386
30	553	333	357	270	---	277	168	2210	567	682	397	308
31	572	---	350	280	---	278	---	2270	---	676	361	---
TOTAL	16333	14496	13020	10062	10945	12506	9039	31673	55312	38797	27596	10346
MEAN	527	483	420	325	377	403	301	1022	1844	1252	890	345
MAX	685	589	542	359	459	495	783	2270	3710	2530	2680	411
MIN	311	333	338	268	219	277	67	82	493	629	353	253
AC-FT	32400	28750	25830	19960	21710	24810	17930	62820	109700	76950	54740	20520

CAL YR 1975 TOTAL 278032 MEAN 762 MAX 6960 MIN 103 AC-FT 551500
WTR YR 1976 TOTAL 250125 MEAN 683 MAX 3710 MIN 67 AC-FT 496100

06228000 WIND RIVER AT RIVERTON, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at bridge 265 ft (81 m) upstream from discharge station.

PERIOD OF RECORD.--Water years 1947-58, 1960 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1947 to September 1949, October 1965 to September 1976 (discontinued).
WATER TEMPERATURES: April 1947 to September 1949, April to September 1953, August 1954 to September 1956, October 1965 to September 1976 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 932 micromhos Dec. 16, 1965; minimum daily, 148 micromhos June 14, 1972.
WATER TEMPERATURES: Maximum, 27.0°C July 23, Aug. 4, 1969, Aug. 7, 1970, June 27, July 10, 1973; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 703 micromhos Jan. 1; minimum daily, 149 micromhos July 13.
WATER TEMPERATURES: Maximum, 25.0°C July 24; minimum, 0.0°C on many days during November to March.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
02...	1145	327	455	10.5	15	10.4	230	170	6
30...	1500	535	--	5.0	5	11.9	4	160	6
DEC									
03...	1400	A522	--	.0	4	11.4	8	170	14
JAN									
12...	1315	A343	560	.0	2	12.1	17	190	18
FEB									
10...	1245	A377	435	.0	4	10.4	16	190	18
MAR									
10...	1450	A495	400	.0	7	11.6	<1	160	21
APR									
12...	1515	600	250	13.5	90	10.2	1	150	11
MAY									
06...	1030	267	210	7.0	90	11.0	220	160	24
26...	1510	1380	250	14.5	60	10.2	73	86	7
JUN									
29...	1330	439	240	22.0	7	10.0	63	100	5
AUG									
12...	1315	868	480	17.0	15	9.4	67	91	9
SEP									
15...	1430	319	400	7.5	1	9.6	19	110	2

A Daily mean discharge.

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT									
02...	48	13	29	1.0	2.3	200	0	164	71
30...	44	12	27	.9	2.1	170	9	154	63
DEC									
03...	44	15	23	.8	2.8	190	0	156	62
JAN									
12...	53	15	27	.8	2.8	210	0	172	71
FEB									
10...	51	15	26	.8	2.6	210	0	172	72
MAR									
10...	44	12	25	.9	2.3	170	0	139	64
APR									
12...	41	12	24	.8	2.8	170	0	139	52
MAY									
06...	43	12	29	1.0	2.6	160	3	136	77
26...	25	5.6	13	.6	.7	96	0	79	28
JUN									
29...	29	7.7	17	.7	1.9	110	3	95	41
AUG									
12...	25	6.8	15	.7	1.4	100	0	82	36
SEP									
15...	30	9.3	24	1.0	1.9	120	6	108	55

06228000 WIND RIVER AT RIVERTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT								
02...	4.7	.4	15	280	.38	247	.02	.04
30...	4.2	.4	6.3	253	.34	365	.00	.02
DEC								
03...	5.3	.4	15	263	.36	371	.00	.02
JAN								
12...	5.2	.4	15	291	.40	270	.11	.01
FEB								
10...	8.7	.4	16	293	.40	248	.14	.05
MAR								
10...	5.2	.4	15	252	.34	337	.07	.03
APR								
12...	5.4	.3	20	243	.33	394	.20	.23
MAY								
06...	5.4	.3	17	271	.37	195	.07	.13
26...	2.2	.2	15	137	.19	510	.07	.16
JUN								
29...	1.9	.3	17	174	.24	206	.00	.07
AUG								
12...	2.6	.3	9.2	147	.20	345	.07	.07
SEP								
15...	3.6	.4	7.0	193	.26	166	.02	.02

06228000 WIND RIVER AT RIVERTON, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.5	7.5	0.0	0.0	0.0	1.0	10.0	16.0	17.0	23.5	23.0	22.0
2	14.0	8.0	0.0	0.0	0.0	1.0	10.5	17.0	17.0	18.0	17.5	22.0
3	15.0	8.0	0.0	0.0	0.0	0.5	10.5	15.0	17.5	20.0	19.0	22.0
4	14.5	8.0	0.5	0.0	0.0	1.0	12.0	15.0	17.0	22.5	20.0	22.0
5	15.0	8.0	0.5	0.0	0.0	1.0	13.0	17.0	19.0	22.0	20.5	22.0
6	15.0	8.0	0.5	0.0	0.0	1.0	9.5	18.0	17.5	23.0	22.0	19.0
7	14.0	7.0	1.0	0.0	0.0	1.0	9.0	17.0	18.0	22.5	22.0	19.0
8	12.0	6.0	1.0	0.0	0.0	1.0	12.0	19.0	17.5	22.0	21.0	18.0
9	8.5	3.5	1.5	0.0	0.0	1.0	13.0	18.5	17.5	22.0	22.0	17.5
10	10.5	2.0	1.0	0.0	0.0	1.5	13.0	20.0	18.0	22.0	18.5	18.0
11	12.5	0.5	0.5	0.0	0.0	0.0	14.0	18.0	16.0	20.5	21.0	18.5
12	12.0	0.5	1.0	0.0	0.5	1.0	14.5	16.0	14.0	20.0	22.0	19.0
13	11.0	1.0	0.0	0.0	0.5	1.0	12.5	20.0	11.5	21.0	21.0	19.5
14	9.5	1.0	0.0	0.0	0.5	0.5	13.0	20.0	8.5	21.0	21.0	20.0
15	9.5	2.5	0.5	0.0	0.5	1.0	13.5	12.0	15.0	21.0	20.0	18.5
16	10.5	5.0	0.0	0.0	0.5	1.0	8.0	15.0	16.0	23.0	19.5	19.0
17	11.0	4.0	0.0	0.0	1.0	1.5	10.0	19.0	13.5	22.5	19.5	20.0
18	11.0	2.0	0.0	0.0	1.0	2.0	13.0	20.5	14.0	22.5	21.0	19.5
19	11.0	1.5	0.0	0.0	0.5	1.0	13.0	19.0	17.5	23.0	22.5	13.5
20	12.0	0.0	0.0	0.0	0.5	1.0	13.5	17.5	20.0	23.0	22.5	17.0
21	12.0	0.0	0.0	0.0	1.0	1.0	14.5	15.0	22.0	22.5	23.0	18.5
22	8.0	0.0	0.0	0.0	0.5	2.0	15.5	13.0	17.0	23.5	23.0	16.0
23	5.0	0.0	0.0	0.0	1.0	2.0	14.0	12.5	15.5	24.0	22.5	17.0
24	6.0	0.0	0.0	0.0	1.0	6.0	16.0	15.0	17.0	25.0	22.0	17.0
25	4.5	0.0	0.0	0.0	1.0	7.0	13.5	15.0	18.0	24.5	23.0	16.0
26	6.0	0.0	0.0	0.0	1.0	7.5	12.0	17.0	19.0	24.0	18.0	14.5
27	6.0	0.0	0.0	0.0	1.0	5.0	11.5	18.5	20.0	23.0	19.0	15.5
28	6.0	0.0	0.0	0.0	1.0	6.0	9.5	18.0	22.0	24.0	21.0	16.0
29	6.0	0.0	0.0	0.0	1.0	5.0	10.5	17.0	23.0	23.0	21.0	16.0
30	6.0	0.0	0.0	0.0	---	7.5	13.0	15.5	24.0	21.5	20.5	17.0
31	8.0	---	0.0	0.0	---	10.5	---	15.5	---	22.5	21.5	---
MONTH	10.0	3.0	0.5	0.0	0.5	2.5	12.5	17.0	17.5	22.5	21.0	18.5
YEAR	MAX	25.0	MIN	0.0	MEAN	10.5						

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	337	423	541	703	444	432	485	521	173	188	268	289
2	453	426	520	505	450	443	477	526	173	177	255	273
3	420	426	455	545	444	453	470	489	166	217	320	277
4	419	422	448	578	449	471	459	441	164	196	222	275
5	424	423	441	556	491	492	453	409	160	186	209	265
6	420	428	452	543	540	498	454	414	156	180	218	266
7	427	423	452	499	530	477	435	396	157	171	221	270
8	431	423	425	511	528	450	406	430	150	169	241	267
9	435	429	456	520	518	427	415	407	153	162	257	276
10	411	413	437	478	558	419	397	340	158	158	251	278
11	423	452	427	465	453	420	366	353	178	153	237	283
12	423	472	455	446	446	444	375	335	152	152	231	285
13	423	487	455	462	461	450	345	391	156	149	247	304
14	415	466	487	467	439	450	332	516	202	160	232	290
15	404	456	495	480	446	448	374	287	220	165	234	315
16	419	447	514	502	452	427	406	268	245	185	233	331
17	419	425	531	475	459	432	590	349	260	206	235	351
18	415	430	555	448	465	428	534	307	281	220	245	344
19	407	430	557	448	466	441	578	227	287	215	244	354
20	413	406	555	463	470	464	578	207	258	211	240	372
21	409	385	531	479	455	454	583	200	221	214	265	366
22	420	380	507	489	460	453	577	212	178	229	243	348
23	415	479	495	481	463	432	580	214	179	228	231	364
24	420	443	592	476	454	463	567	226	189	231	237	340
25	423	411	470	474	451	476	554	223	212	241	229	360
26	443	477	477	483	438	481	559	212	225	245	247	350
27	443	473	448	501	438	461	520	212	253	234	252	358
28	433	507	452	491	438	482	516	195	265	251	273	379
29	428	496	490	467	379	482	549	175	275	234	284	384
30	428	545	479	450	---	477	546	172	254	243	304	376
31	428	---	487	447	---	477	---	169	---	239	320	---
MONTH	420	443	487	495	465	455	483	317	203	200	249	320
YEAR	MAX	703	MIN	149	MEAN	378						

06231000 LITTLE WIND RIVER ABOVE ARAPAHOE, WY

LOCATION.--Lat 42°57'37", long 108°29'54", in NE¼SE¼ sec.22, T.1 S., R.3 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, at bridge on county road, 0.5 mi (0.8 km) west of Arapahoe, and 1.2 mi (1.9 km) upstream from Popo Agie River.

DRAINAGE AREA.--660 mi² (1,709 km²).

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
30...	1415	133	--	5.0	2	11.0	6	330	160
DEC									
02...	1410	112	--	1.0	6	10.5	<1	380	190
JAN									
12...	1515	74	--	.0	2	10.0	4	340	170
FEB									
10...	1530	80	--	.0	2	12.5	12	330	170
MAR									
11...	1420	144	800	.5	20	11.2	11	310	170
APR									
13...	1305	165	900	11.5	20	9.9	14	380	210
MAY									
06...	1510	202	--	12.5	15	10.0	35	360	190
24...	1430	449	--	14.5	55	9.5	--	150	75
JUN									
29...	1515	224	--	15.0	2	10.0	18	200	100
AUG									
12...	1445	202	--	17.5	15	9.0	32	310	160
SEP									
15...	1505	122	--	17.5	2	10.8	'34	460	260

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT									
30...	76	35	71	1.7	2.6	210	0	172	310
DEC									
02...	86	40	70	1.6	2.8	230	0	189	330
JAN									
12...	81	34	55	1.3	2.6	210	0	172	280
FEB									
10...	78	34	50	1.2	2.3	200	0	164	260
MAR									
11...	70	33	64	1.6	2.6	160	3	136	290
APR									
13...	83	41	78	1.8	3.0	210	0	172	350
MAY									
06...	80	39	87	2.0	2.6	190	6	166	370
24...	34	16	32	1.1	2.6	92	0	75	140
JUN									
29...	45	21	39	1.2	1.9	110	6	100	170
AUG									
12...	67	34	69	1.7	2.3	160	9	146	300
SEP									
15...	97	53	120	2.4	3.5	240	0	197	510

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT								
30...	11	.6	6.2	615	.84	221	.11	.01
DEC								
02...	11	.6	9.3	661	.90	200	.25	.02
JAN								
12...	8.7	6.0	10	574	.78	115	.29	.01
FEB								
10...	10	.5	9.4	541	.74	117	.25	.01
MAR								
11...	11	.5	7.5	564	.77	219	.18	.08
APR								
13...	14	.7	7.8	682	.93	304	.07	.06
MAY								
06...	14	.7	7.0	695	.95	379	.02	.04
24...	5.4	.2	6.8	279	.38	338	.14	.09
JUN								
29...	5.6	.5	5.3	353	.48	215	.00	.03
AUG								
12...	8.5	.7	5.8	578	.79	315	.07	.04
SEP								
15...	15	.8	5.7	922	1.25	304	.14	.02

06233000 LITTLE POPO AGIE RIVER NEAR LANDER, WY

LOCATION.--Lat 42°43'00", long 108°38'34", in NE¼SE¼ sec.27, T.32 N., R.99 W., Fremont County, Hydrologic Unit 10080003, on left bank 700 ft (213 m) downstream from bridge on State Highway 28, 2.5 mi (4.0 km) downstream from Red Canyon Creek, and 9.5 mi (15.3 km) southeast of post office in Lander.

DRAINAGE AREA.--125 mi² (324 km²).

PERIOD OF RECORD.--March 1946 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,436.49 ft (1,657.042 m) above mean sea level.

REMARKS.--Records good. Diversions for irrigation of about 540 acres (2.19 km²) above station. Slight regulation by Christina Lake, capacity, about 3,860 acre-ft (4.76 hm³).

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--25 years (water years 1947-71), 80.3 ft³/s (2.274 m³/s), 58,180 acre-ft/yr (71.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft³/s (56.9 m³/s) June 16, 1963, gage height, 6.64 ft (2.024 m); minimum daily, 12 ft³/s (0.34 m³/s) Jan. 20, 21, Feb. 26 to Mar. 2, 1960, Jan. 10, 11, 18, 19, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 4	0600	*352	9.97	3.84	1.170

Minimum daily discharge during period of operation, 29 ft³/s (0.82 m³/s) Apr. 1-3, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							29	36	271	230	155	57
2							29	45	292	244	146	55
3							29	50	316	222	122	52
4							32	57	328	205	101	50
5							37	57	307	195	88	50
6							39	61	304	185	78	50
7							36	54	310	175	68	52
8							30	57	301	172	59	52
9							37	68	292	162	55	50
10							37	74	283	162	52	48
11							39	97	268	150	52	48
12							46	101	218	142	45	50
13							39	101	188	140	45	48
14							41	138	172	122	41	48
15							39	170	155	112	34	48
16							45	150	158	103	34	46
17							37	138	152	101	30	46
18							32	152	175	99	34	46
19							32	185	170	103	34	50
20							29	205	162	101	34	50
21							32	230	165	99	45	50
22							34	319	202	88	55	50
23							37	280	232	86	55	52
24							32	253	200	78	57	50
25							41	238	190	74	59	52
26							45	220	175	80	59	59
27							34	232	165	80	57	61
28							36	265	165	70	64	59
29							34	289	178	68	61	55
30							32	277	237	68	57	54
31							---	268	---	70	57	---
TOTAL							1071	4867	6731	3984	1933	1538
MEAN							35.7	157	224	129	62.4	51.3
MAX							46	319	328	244	155	61
MIN							29	36	152	68	30	46
AC-FT							2120	9650	13350	7900	3830	3050

06235000 BEAVER CREEK NEAR ARAPAHOE, WY

LOCATION.--Lat 42°57'16", long 108°25'39", in NW¼NE¼ sec.29, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, at former gaging station, 1.0 mi (1.6 km) upstream from mouth, and 3.8 mi (6.1 km) east of Arapahoe.

DRAINAGE AREA.--354 mi² (917 km²).

PERIOD OF RECORD.--Water years 1950-53, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

		INSTANTANEOUS DIS-	TEMPER-	HARDNESS	NON-CARBONATE HARD-	DIS-SOLVED CALCIUM	DIS-SOLVED MAGNESIUM	DIS-SOLVED SODIUM	SODIUM AD-SORPTION	DIS-SOLVED POTASSIUM	BICARBONATE
OCT 30...	0930	5.5	--	770	570	230	46	180	2.8	7.4	250
DEC 02...	1030	.43	.0	970	650	280	66	280	3.9	11	390
FEB 12...	1030	8.8	.0	390	240	110	29	150	3.3	7.9	180
MAR 11...	0925	15	.0	450	290	130	31	120	2.5	6.1	200
APR 07...	1340	18	6.0	470	300	140	32	110	2.2	7.0	190
MAY 06...	1610	30	9.0	270	120	80	18	64	1.7	5.1	180
24...	1400	32	15.0	260	130	76	16	70	1.9	5.8	160
JUN 28...	1300	3.0	29.0	510	310	150	36	160	3.0	10	250
AUG 12...	1130	.06	31.0	780	530	240	44	230	3.6	9.5	300
SEP 17...	1200	.04	21.0	850	600	240	65	320	4.7	10	300

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED FLUORIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 30...	0	205	780	110	1.2	15	1490	2.03	22.1	.16	.28
DEC 02...	0	320	1000	180	1.4	21	2080	2.83	2.41	.09	.02
FEB 12...	0	148	470	72	.9	11	935	1.27	22.2	.16	.26
MAR 11...	0	164	460	61	1.0	14	916	1.25	37.1	.11	.12
APR 07...	6	166	460	58	1.0	16	920	1.25	44.7	.16	.51
MAY 06...	3	153	220	31	.7	17	531	.72	43.0	.14	.43
24...	0	131	250	27	.6	17	540	.73	46.7	.23	1.0
JUN 28...	0	205	550	81	1.0	18	1130	1.54	9.15	.16	.24
AUG 12...	0	246	840	130	1.1	17	1660	2.26	.27	.00	.03
SEP 17...	0	246	1000	180	1.2	13	1990	2.71	.22	.00	.02

06235500 LITTLE WIND RIVER NEAR RIVERTON, WY

LOCATION.--Lat 42°59'51", long 108°22'29", in NE¼NW¼ sec.11, T.1 S., R.4 E., Fremont County, Hydrologic Unit 10080002, Wind River Indian Reservation, on right bank 1.8 mi (2.9 km) upstream from mouth and 1.9 mi (3.1 km) southeast of Riverton.

DRAINAGE AREA.--1,904 mi^2 (4,931 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to current year. Prior to October 1958, published as Popo Agie River near Riverton.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,901.84 ft (1,494.081 m) above mean sea level. Prior to Sept. 19, 1956, at site 600 ft (183 m) downstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 62,900 acres (255 km^2) above station.

AVERAGE DISCHARGE.--35 years, 595 ft^3/s (16.85 m^3/s), 431,100 acre-ft/yr (532 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft^3/s (416 m^3/s) June 17, 1963, gage height, 10.85 ft (3.307 m); minimum daily, 41 ft^3/s (1.16 m^3/s) Aug. 7, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,750 ft^3/s (77.9 m^3/s) June 8, gage height, 5.54 ft (1.689 m), no peak above base of 3,200 ft^3/s (90.6 m^3/s); minimum daily, 112 ft^3/s (3.17 m^3/s) Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	257	326	206	199	146	250	208	246	1840	1280	879	165
2	301	318	252	190	142	252	211	246	1860	1750	1330	168
3	339	314	282	185	139	244	211	265	2180	1890	1230	159
4	335	314	292	184	136	233	211	242	2440	1580	1000	142
5	305	305	290	183	124	226	214	273	2460	1490	803	132
6	285	305	288	186	114	226	228	297	2500	1470	699	140
7	265	305	282	186	112	236	254	366	2600	1390	603	153
8	265	293	280	187	120	248	254	349	2620	1320	511	148
9	269	277	276	188	149	268	238	322	2570	1240	460	150
10	277	246	272	190	174	286	238	349	2490	1160	416	156
11	281	231	269	186	195	302	235	352	2390	1130	366	171
12	281	201	254	180	221	298	242	400	2090	1100	301	168
13	309	250	249	176	232	288	261	411	1470	1020	269	171
14	326	281	238	170	230	280	265	359	1310	938	265	180
15	301	314	224	170	228	270	265	469	1160	783	250	177
16	301	318	210	172	228	270	281	632	887	643	235	174
17	297	293	207	176	232	272	348	524	790	543	228	174
18	293	268	205	173	232	286	326	487	1100	511	208	171
19	293	220	202	169	228	304	285	613	1230	548	189	180
20	281	182	200	164	222	281	261	781	1020	581	195	281
21	281	153	199	159	220	254	246	989	1070	586	189	269
22	281	162	194	155	222	238	246	1480	1440	559	189	254
23	309	184	190	156	230	238	238	1890	2060	511	198	257
24	339	200	193	158	240	238	246	1510	1880	465	186	250
25	309	214	203	152	247	235	242	1350	1480	421	189	250
26	309	210	209	147	250	238	265	1180	1220	559	201	269
27	379	204	214	140	256	224	297	1100	1060	490	180	318
28	348	192	216	140	256	220	277	1240	938	398	192	352
29	322	176	216	145	252	211	289	1800	887	335	195	335
30	326	162	214	143	---	201	273	2200	1020	309	192	343
31	335	---	210	142	---	198	---	2060	---	305	180	---
TOTAL	9399	7418	7236	5251	5777	7815	7655	24782	50062	27305	12528	6257
MEAN	303	247	233	169	199	252	255	799	1669	881	404	209
MAX	379	326	292	199	256	304	348	2200	2620	1890	1330	352
MIN	257	153	190	140	112	198	208	242	790	305	180	132
AC-FT	18640	14710	14350	10420	11460	15500	15180	49160	99300	54160	24850	12410

CAL YR 1975 TOTAL 228097 MEAN 625 MAX 4280 MIN 153 AC-FT 452400
WTR YR 1976 TOTAL 171485 MEAN 469 MAX 2620 MIN 112 AC-FT 340100

06235500 LITTLE WIND RIVER NEAR RIVERTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-58, 1960-64, 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1976 (discontinued).
WATER TEMPERATURES: March to September 1949, May to September 1953, October 1955 to September 1956, October 1965 to September 1976 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,160 micromhos Apr. 23, 1971; minimum daily, 109 micromhos Feb. 17, 1970.
WATER TEMPERATURES: Maximum, 28.0°C Aug. 7, 1949, Aug. 4, 1969; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,310 micromhos Mar. 3; minimum daily, 208 micromhos June 5.
WATER TEMPERATURES: Maximum, 26.5°C July 24; minimum, 0.0°C on many days during November to March.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)
OCT												
02...	1515	322	--	14.0	--	390	210	89	40	80	1.8	3.0
30...	1145	322	--	5.0	--	380	200	90	38	74	1.6	2.6
DEC												
08...	1400	A280	1050	.0	--	420	230	100	40	70	1.5	2.6
JAN												
15...	1450	A170	--	.0	--	350	190	85	34	54	1.3	2.8
FEB												
11...	1545	A195	--	.0	--	330	160	80	33	53	1.3	3.0
MAR												
11...	1105	A302	900	.0	--	350	190	82	36	75	1.7	3.0
APR												
07...	1050	254	--	5.5	--	370	200	89	36	70	1.6	3.0
MAY												
07...	1510	370	925	15.0	--	270	130	67	24	52	1.4	2.6
24...	1205	1470	340	12.5	--	140	61	34	13	30	1.1	2.1
JUN												
29...	1040	810	--	17.0	7	190	83	47	19	33	1.0	1.6
AUG												
02...	1500	1340	640	19.0	--	220	97	62	16	44	1.3	4.4
SEP												
15...	1500	177	--	18.5	--	430	220	98	46	92	1.9	3.7

A Daily mean discharge.

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT												
02...	220	3	185	380	7.6	.6	6.6	712	.97	619	.02	.03
30...	220	0	180	350	12	.6	5.0	679	.92	590	.02	.02
DEC												
08...	230	0	189	340	12	.6	8.5	690	.94	522	.29	.01
JAN												
15...	190	0	156	280	8.7	.5	11	573	.78	263	.41	.06
FEB												
11...	210	0	172	270	12	.5	10	562	.76	296	.32	.09
MAR												
11...	190	0	156	350	12	.5	9.1	662	.90	540	.54	.11
APR												
07...	200	6	174	330	15	.6	6.1	659	.90	452	.00	.04
MAY												
07...	170	0	139	220	13	.4	8.8	472	.64	472	.05	.13
24...	96	0	79	100	6.1	.1	8.9	248	.34	984	.25	.30
JUN												
29...	130	0	107	150	5.6	.4	7.2	331	.45	724	.05	.07
AUG												
02...	150	0	123	180	7.4	.4	11	399	.54	1440	.00	1.5
SEP												
15...	260	0	213	420	9.0	.6	7.7	802	1.09	383	.00	.01

06235500 LITTLE WIND RIVER NEAR RIVERTON, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	912	913	952	916	844	1040	1060	905	280	393	790	986
2	1060	942	973	906	867	1050	1040	916	266	383	759	1010
3	1020	942	933	921	856	1310	1020	883	243	325	717	1050
4	947	939	1020	937	851	1160	1010	809	215	353	649	1070
5	918	928	1040	939	886	1090	1010	773	208	363	655	1090
6	958	939	1040	931	910	1020	1000	715	211	355	686	1150
7	985	930	1040	910	954	974	974	704	220	355	716	1160
8	1000	954	889	893	932	885	946	721	214	373	738	1160
9	1010	932	913	922	887	858	1030	696	217	495	753	1150
10	986	883	915	920	849	944	985	732	218	359	773	1140
11	986	952	971	899	817	930	959	647	221	377	800	1130
12	964	1010	993	862	885	945	945	594	254	390	868	1120
13	964	1010	993	867	876	978	923	532	332	390	878	1090
14	1000	991	1010	846	865	978	887	535	401	405	937	1080
15	1060	958	1020	870	858	993	879	480	493	460	954	1110
16	1048	961	1040	870	910	961	821	536	534	510	967	1090
17	983	882	1070	839	910	949	819	607	551	569	1000	1090
18	918	929	1050	834	910	996	1240	575	559	618	1000	1110
19	958	931	1040	834	921	1100	1130	478	748	648	1000	1120
20	969	953	1090	870	940	1160	1060	396	623	609	1030	1160
21	971	1000	1050	895	940	1090	1000	334	542	640	1020	1170
22	974	1060	1060	923	921	1040	961	522	424	633	1020	1120
23	971	1100	982	894	911	1060	940	355	395	672	1000	1070
24	962	932	953	899	880	1050	905	403	468	697	973	1040
25	988	934	936	852	866	1070	894	394	439	717	973	1070
26	1020	934	853	862	850	1040	884	400	463	746	989	1020
27	1020	961	905	885	860	1080	858	397	489	927	996	997
28	1210	947	886	936	1030	1030	892	350	520	805	995	966
29	1050	969	900	897	910	1020	892	287	511	810	973	934
30	993	992	921	830	---	1040	880	253	448	815	995	934
31	952	---	857	849	---	1040	---	261	---	838	995	---
MONTH	992	957	977	887	893	1030	961	555	390	547	898	1080
YEAR	MAX	1310	MIN	208	MEAN	846						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	7.5	0.0	0.0	0.0	0.5	10.5	17.0	16.0	21.0	19.0	23.0
2	15.0	8.0	0.0	0.0	0.0	0.5	11.0	17.5	16.0	18.0	18.5	23.0
3	15.0	8.0	0.0	0.0	0.0	0.5	12.0	16.5	16.0	18.0	20.0	22.5
4	14.5	8.0	0.5	0.0	0.0	0.5	13.0	16.0	16.0	20.5	21.0	23.0
5	15.0	7.5	0.5	0.0	0.0	0.5	14.0	17.0	15.5	21.0	22.0	23.0
6	15.5	7.0	0.5	0.0	0.0	0.5	10.0	18.5	16.5	22.0	23.0	20.0
7	14.0	7.0	0.5	0.0	0.0	1.0	10.5	16.5	16.0	22.0	22.5	20.0
8	11.5	6.0	0.5	0.0	0.0	1.0	13.0	18.5	16.0	21.5	21.5	19.0
9	9.0	4.0	1.0	0.0	0.0	1.0	13.5	18.0	16.5	22.5	22.0	19.0
10	11.0	2.5	0.5	0.0	0.0	1.0	13.5	19.0	16.5	23.0	20.0	19.0
11	12.5	0.5	0.5	0.0	0.0	0.0	16.0	18.0	15.0	22.5	22.0	19.5
12	12.5	0.5	0.5	0.0	0.5	0.5	14.5	16.0	14.0	21.5	23.0	19.0
13	11.0	1.0	0.0	0.0	0.5	0.5	13.0	19.0	11.5	23.0	23.0	20.5
14	10.0	1.5	0.0	0.0	0.5	0.0	14.0	20.0	8.5	23.0	24.0	21.0
15	10.0	3.0	0.0	0.0	0.5	0.5	13.5	12.5	13.5	23.0	21.0	19.5
16	11.0	4.0	0.0	0.0	0.5	1.0	9.0	15.5	16.0	24.5	22.0	20.0
17	11.0	3.0	0.0	0.0	0.5	1.0	10.0	18.5	14.0	24.0	21.0	20.5
18	11.5	2.0	0.0	0.0	0.5	2.0	13.0	20.0	13.0	23.5	22.0	20.0
19	12.0	1.0	0.0	0.0	0.5	2.0	13.0	21.0	16.0	24.0	24.0	14.0
20	12.0	0.0	0.0	0.0	0.5	5.0	14.0	19.5	19.0	23.5	24.5	17.0
21	12.5	0.0	0.0	0.0	0.5	5.0	15.0	15.0	21.0	24.0	25.0	19.0
22	8.0	0.0	0.0	0.0	0.5	7.0	15.5	12.5	17.0	25.0	25.0	17.0
23	5.0	0.0	0.0	0.0	0.5	8.0	14.5	11.5	14.5	25.5	24.0	17.0
24	6.0	0.0	0.0	0.0	0.5	8.0	15.5	14.0	15.0	26.5	22.5	18.0
25	5.0	0.0	0.0	0.0	0.5	7.0	13.0	15.0	16.0	25.0	25.0	16.0
26	6.0	0.0	0.0	0.0	0.5	9.0	12.0	16.5	17.5	23.5	19.0	15.0
27	6.5	0.0	0.0	0.0	0.5	6.5	11.5	18.5	19.0	24.0	20.5	16.0
28	7.0	0.0	0.0	0.0	0.5	7.0	10.0	18.5	20.5	25.0	22.0	16.0
29	6.5	0.0	0.0	0.0	0.5	6.5	11.0	16.5	21.0	23.0	21.5	16.0
30	6.5	0.0	0.0	0.0	---	9.0	13.0	14.5	21.5	22.0	21.0	17.0
31	8.0	---	0.0	0.0	---	11.0	---	14.5	---	24.5	23.0	---
MONTH	10.5	2.5	0.0	0.0	0.5	3.5	12.5	17.0	16.0	23.0	22.0	19.0
YEAR	MAX	26.5	MIN	0.0	MEAN	10.5						

06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY

LOCATION.--Lat 43°07'43", long 108°13'28", in NW¼NE¼NE¼ sec.25, T.2 N., R.5 E., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, 4.0 mi (6.4 km) upstream from Muskrat Creek, 5.3 mi (8.5 km) upstream from high-water line of Boysen Reservoir at elevation 4,725 ft (1,440 m), and 9.4 mi (15.1 km) southwest of Shoshoni.

DRAINAGE AREA.--4,390 mi² (11,370 km²).

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 30...	0955	1070	--	3.5	5	11.5	48	270	94
DEC 03...	1030	870	--	.0	3	10.8	530	260	78
JAN 12...	1030	547	--	.0	2	11.6	11	250	67
FEB 11...	1110	671	--	.0	4	9.6	820	240	58
MAR 10...	1100	890	--	.5	15	11.9	380	240	81
APR 13...	1500	1020	510	12.0	120	8.6	57	190	46
MAY 06...	1300	608	--	7.0	60	10.8	140	230	69
27...	1400	2340	--	15.5	70	10.2	100	110	19
JUN 29...	1030	1490	--	14.5	20	10.4	110	150	47
AUG 12...	1100	1190	--	17.0	15	10.0	210	180	50
SEP 16...	1125	642	--	16.0	3	8.6	250	200	50

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 30...	72	23	49	1.3	2.8	220	180	170	7.4
DEC 03...	68	23	43	1.2	2.9	228	187	170	6.3
JAN 12...	66	21	40	1.1	3.0	225	185	150	6.1
FEB 11...	62	20	39	1.1	2.8	219	180	140	7.3
MAR 10...	63	21	45	1.3	3.0	199	163	160	7.4
APR 13...	50	17	35	1.1	3.3	182	149	110	6.5
MAY 06...	56	21	45	1.3	3.1	192	157	160	7.6
27...	29	9.2	19	.8	1.9	111	91	73	3.8
JUN 29...	38	13	28	1.0	1.9	124	102	110	3.2
AUG 12...	48	14	31	1.0	2.0	146	120	110	3.8
SEP 16...	52	18	48	1.5	2.7	188	154	160	5.1

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)
OCT 30...	.4	8.9	442	.60	1280	.01	--	70
DEC 03...	.3	14	441	.60	1040	.23	--	70
JAN 12...	.4	14	412	.56	608	.01	--	60
FEB 11...	.3	13	394	.54	714	.38	.06	--
MAR 10...	.3	12	411	.56	988	.37	.10	--
APR 13...	.3	13	325	.44	895	.08	.36	--
MAY 06...	.3	11	399	.54	655	.11	.18	--
27...	.2	11	202	.27	1280	.00	.02	--
JUN 29...	.3	10	266	.36	1070	.12	.04	--
AUG 12...	.3	9.8	291	.40	935	.00	.04	--
SEP 16...	.3	7.3	386	.53	669	.08	.00	--

06236100 WIND RIVER ABOVE BOYSEN RESERVOIR, NEAR SHOSHONI, WY

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	POLYCHLORINATED NAPHTHALENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)
SEP 22...	1010	690	.0	0	.00	.00	.0	.0	0	.00	.0	.00

DATE	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)
SEP 22...	.1	.00	.0	.00	.00	.0	.00	.0	.00	.00	.0

DATE	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL METHYL TRITHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL TOXAPHENE (UG/L)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)
SEP 22...	.00	.0	.00	.0	.00	.00	.00	.00	0	0	.00

06244500 FIVEMILE CREEK ABOVE WYOMING CANAL, NEAR PAVILLION, WY

LOCATION.--Lat 43°18'05", long 108°42'08", in SE¼SW¼SE¼ sec.24, T.4 N., R.1 E., Fremont County, Hydrologic Unit 10080005, at former gaging station, 1,700 ft (518 m) upstream from Wyoming Canal siphon and 4.0 mi (6.4 km) north of Pavillion.

DRAINAGE AREA.--118 mi^2 (306 km).

PERIOD OF RECORD.--Water years 1950-58, 1961 to September 1976 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT								
02...	1210	1.8	3300	7.9	14.0	1	1900	1700

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT									
02...	480	170	350	3.5	12	200	0	164	2400

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT								
02...	66	1.4	7.9	3610	4.91	17.5	.02	.00

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT					
02...	1210	14.0	1.8	18	.09

06253000 FIVEMILE CREEK NEAR SHOSHONI, WY

LOCATION.--Lat 43°13'20", long 108°13'06", in NW¼SW¼ sec.19, T.3 N., R.6 E., Fremont County, Hydrologic Unit 10080005, on right bank 1.2 mi (1.9 km) upstream from normal high-water line of Boysen Reservoir at elevation 4,725 ft (1,440 m) and 5.0 mi (8.0 km) west of Shoshoni.

DRAINAGE AREA.--418 mi^2 (1,083 km^2), of which 133 mi^2 (344 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1941 to September 1942, August 1948 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,750 ft (1,448 m), from topographic map. May 10, 1941, to Sept. 30, 1942, nonrecording gage at site 1.0 mi (1.6 km) downstream at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by regulation of Bureau of Indian Affairs reservoir system in the headwaters, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--29 years, 153 ft^3/s (4.333 m^3/s), 110,800 acre-ft/yr (137 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,390 ft^3/s (96.0 m^3/s) June 15, 1962, gage height, 7.85 ft (2.393 m), from rating curve extended above 2,500 ft^3/s (70.8 m^3/s); maximum gage height, 9.61 ft (2.929 m) Dec. 27, 1954 (backwater from ice); minimum daily discharge, 1.0 ft^3/s (0.028 m^3/s) Jan. 4-6, 1942.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of July 24, 1923, discharge, 3,500 ft^3/s (99.1 m^3/s), estimated by Bureau of Reclamation, exceeded all floods at this location during period of record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,020 ft^3/s (28.9 m^3/s) Aug. 1, gage height, 4.84 ft (1.475 m); minimum daily, 35 ft^3/s (0.99 m^3/s) Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	322	101	86	58	55	56	44	117	388	442	755	406
2	228	99	79	57	57	46	43	125	388	426	738	402
3	193	99	71	55	55	43	42	123	398	426	706	406
4	172	95	69	56	51	39	41	135	353	430	816	402
5	157	96	68	55	47	37	40	155	325	426	655	406
6	151	95	69	55	40	37	40	155	339	412	486	412
7	147	93	70	56	35	37	45	161	364	420	506	430
8	145	90	71	56	40	38	45	174	332	430	514	426
9	137	87	72	57	49	40	47	177	350	426	514	420
10	135	87	69	57	59	42	48	172	370	442	426	423
11	125	87	66	57	56	43	51	181	374	460	416	423
12	131	72	62	58	57	37	53	177	381	480	423	416
13	135	77	59	59	58	39	57	172	416	492	406	420
14	133	82	56	60	58	42	50	170	546	502	398	420
15	127	85	55	61	57	43	50	287	591	498	409	420
16	125	85	55	61	58	43	54	251	555	506	402	416
17	121	84	55	60	60	44	54	278	573	506	406	416
18	121	82	56	59	62	45	46	272	591	514	423	406
19	120	81	57	57	58	47	43	290	537	502	426	430
20	120	70	58	56	54	46	42	281	502	482	430	409
21	120	67	57	57	51	44	62	254	524	506	434	388
22	125	73	56	58	53	42	64	318	532	537	416	420
23	118	76	55	60	54	44	106	342	510	560	426	486
24	110	78	56	63	55	46	91	395	506	568	438	498
25	105	75	58	58	56	49	133	398	474	591	426	494
26	104	71	60	56	57	53	166	360	454	560	426	498
27	105	68	64	58	57	55	133	370	442	573	426	524
28	111	62	66	59	57	56	137	353	409	560	406	482
29	107	58	64	61	56	53	115	336	342	537	395	462
30	106	64	62	61	---	51	110	374	406	528	398	474
31	105	---	61	55	---	47	---	381	---	546	402	---
TOTAL	4261	2439	1962	1796	1562	1384	2052	7734	13272	15288	14848	13035
MEAN	137	81.3	63.3	57.9	53.9	44.6	68.4	249	442	493	479	435
MAX	322	101	86	63	62	56	166	398	591	591	816	524
MIN	104	58	55	55	35	37	40	117	325	412	395	388
AC-FT	8450	4840	3890	3560	3100	2750	4070	15340	26330	30320	29450	25850

CAL YR 1975 TOTAL 64155 MEAN 176 MAX 519 MIN 23 AC-FT 127300
WTR YR 1976 TOTAL 79633 MEAN 218 MAX 816 MIN 35 AC-FT 158000

06253000 FIVEMILE CREEK NEAR SHOSHONI, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT												
02...	1000	233	10.0	15	340	140	80	33	180	4.3	3.5	240
29...	1425	106	7.5	--	430	230	100	42	300	6.4	3.3	250
DEC												
01...	1420	A86	.5	--	530	260	150	39	330	6.2	4.2	330
JAN												
13...	1310	A59	.0	8	560	270	160	41	380	6.9	4.4	350
FEB												
02...	1210	A57	.0	--	590	310	160	45	360	6.5	3.7	340
27...	1115	57	1.0	--	610	360	170	43	340	6.0	4.9	310
APR												
06...	1225	45	7.5	--	620	410	170	46	360	6.3	4.0	250
MAY												
07...	1000	166	12.0	--	310	130	89	23	170	4.2	3.3	210
27...	1155	384	14.0	--	220	89	62	16	99	2.9	3.3	160
JUN												
30...	1030	412	18.0	--	200	69	57	15	100	3.0	2.1	160
AUG												
02...	1615	782	18.5	--	200	61	57	14	120	3.7	4.4	170
SEP												
10...	1210	420	14.5	--	210	54	57	16	120	3.6	2.6	190

A Daily mean discharge.

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT											
02...	0	197	510	14	.8	9.1	950	1.29	598	.72	.07
29...	0	205	810	22	1.0	6.2	1410	1.92	404	1.2	.02
DEC											
01...	0	271	950	26	1.1	8.4	1680	2.28	390	2.2	.07
JAN											
13...	0	287	1100	28	1.1	9.1	1860	2.53	296	2.7	.02
FEB											
02...	0	279	1000	26	1.1	9.5	1810	2.46	279	2.9	.03
27...	0	254	1100	26	1.2	8.5	1820	2.48	280	2.7	.06
APR											
06...	3	210	1100	28	1.2	6.3	1900	2.58	231	2.5	.01
MAY											
07...	3	177	490	16	.7	11	911	1.24	408	.99	.11
27...	0	131	290	10	.6	11	579	.79	600	.59	.22
JUN											
30...	0	131	280	8.2	.6	13	561	.76	624	.59	.35
AUG											
02...	0	139	300	12	.6	11	598	.81	1260	.09	.41
SEP											
10...	0	156	290	11	.6	7.1	600	.82	680	.77	.02

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT					
02...	1000	10.0	233	86	54

06256900 DRY CREEK NEAR BONNEVILLE, WY

LOCATION.--Lat 43°16'52", long 107°54'45", in NW¼NW¼ sec.8, T.38 N., R.92 W., Fremont County, Hydrologic Unit 10080006, on left bank 0.4 mi (0.6 km) upstream from mouth and 8.0 mi (12.9 km) east of Bonneville.

DRAINAGE AREA.--52.6 mi^2 (136 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,010 ft (1,527 m), from topographic map.

REMARKS.--Records poor. Diversions for irrigation of about 200 acres (81 hm^2) above station.

AVERAGE DISCHARGE.--11 years, 3.22 ft^3/s (0.091 m^3/s), 2,330 acre-ft/yr (2.87 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,650 ft^3/s (46.7 m^3/s) June 17, 1967, gage height, 12.41 ft (3.783 m), from rating curve extended above 67 ft^3/s (1.90 m^3/s) on basis of slope-area measurement of peak flow; no flow for most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3.8 ft^3/s (0.108 m^3/s) Sept. 19, gage height, 4.82 ft (1.469 m), no peak above base of 50 ft^3/s (1.42 m^3/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	.26			0		0	0
2					0	.22			0		.32	0
3					0	.20			0		.76	0
4					0	.19			0		.12	0
5					0	.16			0		0	0
6					0	.13			0		0	0
7					0	.11			0		0	0
8					0	.09			0		0	0
9					0	.12			0		0	0
10					0	.18			0		0	0
11					0	.22			0		0	0
12					0	.19			0		0	0
13					0	.20			0		0	0
14					0	.22			0		0	0
15					0	.20			.29		0	0
16					0	.20			.06		0	0
17					0	.24			0		0	0
18					0	.22			0		0	0
19					0	.17			0		0	.52
20					0	.05			0		0	.08
21					0	0			0		0	0
22					0	.08			0		0	0
23					0	.10			0		0	0
24					.13	.08			0		0	0
25					.27	.08			0		0	0
26					.30	.01			0		0	0
27					.29	0			0		0	0
28					.29	0			0		0	0
29					.28	0			0		0	0
30					---	0			0		0	0
31		---			---	0	---		---		0	---
TOTAL	0	0	0	0	1.56	3.92	0	0	.35	0	1.20	.60
MEAN	0	0	0	0	.054	.13	0	0	.012	0	.039	.020
MAX	0	0	0	0	.30	.26	0	0	.29	0	.76	.52
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	3.1	7.8	0	0	.7	0	2.4	1.2

CAL YR 1975 TOTAL 2424.47 MEAN 6.64 MAX 130 MIN 0 AC-FT 4810
WTR YR 1976 TOTAL 7.63 MEAN .021 MAX .76 MIN 0 AC-FT 15

06256900 DRY CREEK NEAR BONNEVILLE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED-SEDIMENT DISCHARGE: September 1965 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, not determined; minimum daily mean, no flow for many days each year.
SEDIMENT LOADS: Maximum daily, 19,000 tons (17,200 tonnes) June 15, 1967; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, not determined; minimum daily mean, no flow for many days during year.
SEDIMENT LOADS: Maximum daily, 0.24 ton (0.22 tonne) Aug. 3; minimum daily, 0 tons on many days during year.

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

			SUSPENDED SEDIMENT					
MONTH	DISCHARGE (CFS-DAYS)	RUNOFF (ACRE-FEET)	DISCHARGE (TONS)	DAILY DISCHARGE (TONS)			CONCENTRATION (MG/L)	
				MEAN	MAXIMUM	MINIMUM	WEIGHTED MEAN	MAXIMUM OBSERVED
OCTOBER 1975...	0	0	0	0	0	0		
NOVEMBER........	0	0	0	0	0	0		
DECEMBER........	0	0	0	0	0	0		
JANUARY 1976...	0	0	0	0	0	0		
FEBRUARY.......	1.56	3.1	.28	.010	.06	0		
MARCH..........	3.92	7.8	.54	.017	.04	0		
APRIL..........	0	0	0	0	0	0		
MAY............	0	0	0	0	0	0		
JUNE...........	.35	.69	.06	.002	.05	0		
JULY...........	0	0	0	0	0	0		
AUGUST.........	1.20	2.4	.31	.010	.24	0		
SEPTEMBER......	.60	1.2	.14	.005	.13	0		
WATER YEAR...	7.63	15	1.33	.004	.24	0		

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)
AUG 03...	1055	1.0	300	12.0	110	0	36	3.8	38	1.6	4.9

DATE	BICAR-BONATE (HCO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
AUG 03...	134	110	100	4.9	.4	12	268	.36	.72	.44	.02

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM
FEB 26...	1240	.5	A.30	358	.29	--	--
AUG 03...	1055	12.0	1.0	3630	9.8	96	100

A Daily mean discharge.

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
AUG 03...	1055	12.0	1.0	1	1	3	25

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
AUG 03...	37	60	77	85	90	96	100

06258000 MUDDY CREEK NEAR SHOSHONI, WY

LOCATION.--Lat 43°17'10", long 108°16'30", in NE¼NW¼ sec.34, T.4 N., R.5 E., Fremont County, Hydrologic Unit 10080005, on left bank 2.5 mi (4.0 km) upstream from normal high-water line of Boysen Reservoir at elevation 4,725 ft (1,440 m) and 9.0 mi (14.5 km) northwest of Shoshoni.

DRAINAGE AREA.--332 mi² (860 km²).

PERIOD OF RECORD.--March 1949 to September 1968, October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,780 ft (1,457 m), from topographic map. Prior to May 13, 1949, water-stage recorder at site 50 ft (15 m) upstream at different datum.

REMARKS.--Records good except those for winter period and period of no gage-height record, Dec. 17 to Feb. 26, which are poor. Natural flow of stream affected by regulation of Bureau of Indian Affairs reservoir system in the headwaters, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--23 years (water years 1950-68, 1973-76), 20.5 ft³/s (0.581 m³/s), 14,850 acre-ft/yr (18.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,430 ft³/s (40.5 m³/s) July 22, 1951, gage height, 7.50 ft (2.286 m); no flow at times in some years.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Flood of July 24, 1923, reached a discharge of 16,300 ft³/s (462 m³/s), from slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 265 ft³/s (7.50 m³/s) Aug. 1, gage height, 3.74 ft (1.140 m); minimum daily, 5.2 ft³/s (0.15 m³/s) Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	78	18	12	6.0	10	16	18	33	93	78	142	57
2	68	18	13	5.9	9.8	15	18	22	64	70	133	55
3	28	18	13	5.8	10	14	17	21	56	74	179	55
4	17	18	13	5.9	9.7	14	16	20	47	75	154	48
5	13	19	13	6.1	9.0	15	16	20	35	71	140	41
6	12	19	12	6.1	6.9	16	17	22	31	60	146	45
7	12	19	12	6.2	5.2	17	18	25	27	55	140	47
8	12	19	12	6.2	5.7	18	17	37	28	58	147	60
9	11	17	13	6.3	6.5	19	16	30	32	60	150	71
10	11	17	13	6.4	7.9	20	16	28	28	45	141	87
11	11	17	12	6.5	8.0	21	16	27	40	52	131	99
12	11	17	11	6.7	8.3	20	19	37	41	57	119	105
13	13	17	11	6.6	8.9	19	20	37	48	51	115	109
14	19	16	11	6.4	8.8	20	21	33	68	52	87	142
15	16	16	10	6.3	8.7	19	22	42	90	66	80	115
16	14	15	9.3	6.5	8.5	20	23	41	108	63	79	113
17	14	14	7.8	7.1	8.4	21	25	40	115	58	65	111
18	14	14	6.9	7.1	8.3	22	35	40	110	61	64	111
19	14	13	7.0	7.0	8.2	23	68	44	142	70	62	118
20	14	13	7.0	6.9	8.0	22	18	51	161	77	61	114
21	14	13	7.0	6.8	8.0	21	14	54	164	85	68	114
22	16	14	6.9	7.0	8.3	21	26	64	161	75	56	102
23	16	14	6.7	7.8	8.7	22	34	81	150	77	50	101
24	14	15	6.7	8.5	10	24	25	82	140	81	51	103
25	14	14	6.7	8.2	11	26	19	78	131	81	54	93
26	14	13	6.9	7.9	13	27	30	85	121	84	60	91
27	14	13	7.0	8.2	14	27	67	98	121	85	62	94
28	16	13	6.7	8.8	14	25	81	103	114	89	60	94
29	15	13	6.5	9.5	15	24	69	99	102	90	60	90
30	15	13	6.4	11	---	23	69	98	94	93	63	89
31	17	---	6.1	10	---	20	---	99	---	102	58	---
TOTAL	567	469	292.6	221.7	266.8	631	870	1591	2662	2195	2977	2674
MEAN	18.3	15.6	9.44	7.15	9.20	20.4	29.0	51.3	88.7	70.8	96.0	89.1
MAX	78	19	13	11	15	27	81	103	164	102	179	142
MIN	11	13	6.1	5.8	5.2	14	14	20	27	45	50	41
AC-FT	1120	930	580	440	529	1250	1730	3160	5280	4350	5900	5300

CAL YR 1975 TOTAL 11243.3 MEAN 30.8 MAX 157 MIN 4.3 AC-FT 22300
WTR YR 1976 TOTAL 15417.1 MEAN 42.1 MAX 179 MIN 5.2 AC-FT 30580

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY

LOCATION.--Lat 43°25'30", long 108°10'42", in NW¼SW¼ sec.9, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, on right bank 0.6 mi (1.0 km) downstream from Boysen Dam and 13 mi (21 km) north of Shoshoni.

DRAINAGE AREA.--7,701 mi^2 (19,946 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1951 to current year.

REVISED RECORDS.--WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,608.58 ft (1,404.695 m) above mean sea level.

REMARKS.--Records good. Flow regulated by Boysen Reservoir since October 1951. (See page 286.) Natural flow also affected by Bull Lake, Pilot Butte Reservoir, and several small reservoirs, combined capacity, 190,000 acre-ft (234 hm^3), and diversions for irrigation of about 196,000 acres (793 km^2) above station.

AVERAGE DISCHARGE.--25 years, 1,446 ft^3/s (40.95 m^3/s), 1,048,000 acre-ft/yr (1,292 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,500 ft^3/s (382 m^3/s) July 7, 1967, gage height, 13.35 ft (4.069 m); minimum daily, 4.7 ft^3/s (0.13 m^3/s) Apr. 3, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,120 ft^3/s (60.0 m^3/s) June 16, 17, gage height, 6.01 ft (1.832 m); minimum daily, 413 ft^3/s (11.7 m^3/s) June 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1300	1310	1100	1800	1730	1400	1290	2030	1730	1220	1420	1240
2	1320	1300	1090	1780	1730	1400	1530	2030	1740	1250	1420	1240
3	1320	1310	1090	1800	1750	1400	1510	1460	1740	1250	1430	1240
4	1320	1310	1090	1800	1750	1400	1530	1370	1750	1250	1430	1230
5	1320	1300	1100	1800	1730	1400	1530	2060	1760	1250	1280	1230
6	1310	1300	1090	1800	1740	1400	1530	2070	1740	1150	1210	1240
7	1300	1310	1090	1770	1740	1400	1700	1950	1730	1100	1220	1250
8	1300	1310	1090	1770	1740	1450	1950	1800	1720	1180	1210	1260
9	1310	1310	1090	1770	1720	1500	2030	1810	1740	1240	1220	1260
10	1300	1170	1090	1780	1720	1500	2040	1810	1720	1250	1230	1260
11	1300	1090	1090	1760	1700	1550	2030	1820	1470	1260	1230	1260
12	1320	1090	1450	1760	1700	1540	2030	1720	423	1260	1230	1260
13	1310	1090	1720	1760	1700	1540	2030	1550	413	1270	1220	1250
14	1300	1090	1740	1750	1700	1540	2030	1560	1410	1280	1220	1250
15	1300	1090	1730	1770	1700	1530	2030	1550	2100	1370	1220	1240
16	1310	1090	1730	1770	1690	1540	1880	1540	2100	1420	1220	1240
17	1300	1100	1710	1770	1700	1540	1600	1550	1920	1410	1230	1230
18	1300	1100	1710	1780	1690	1530	2050	1570	1820	1410	1220	1260
19	1300	1100	1710	1760	1710	1530	2040	1580	1820	1410	1230	1260
20	1310	1090	1710	1760	1700	1530	1940	1570	1830	1410	1240	1270
21	1310	1090	1700	1760	1700	1530	2030	1570	1830	1410	1230	1240
22	1330	1090	1700	1760	1690	1520	2030	1580	1830	1400	1230	1200
23	1250	1100	1700	1740	1700	1520	2030	1580	1840	1400	1220	1260
24	1310	1110	1700	1750	1560	1190	2020	1660	1590	1410	1230	1260
25	1310	1110	1700	1740	1400	1030	2030	1700	1400	1420	1230	1150
26	1310	1090	1690	1740	1400	1250	2030	1720	997	1410	1240	1240
27	1310	1100	1690	1740	1400	1530	2030	1700	1050	1410	1250	1250
28	1310	1110	1680	1730	1400	1520	2040	1700	1050	1420	1250	1090
29	1320	1100	1730	1730	1400	1300	2010	1710	1150	1420	1240	994
30	1320	1100	1800	1740	---	1050	2030	1700	1170	1420	1250	1010
31	1330	---	1800	1750	---	1050	---	1710	---	1420	1240	---
TOTAL	40560	34860	46110	54690	47990	44110	56580	52730	46583	41180	38940	36664
MEAN	1308	1162	1487	1764	1655	1423	1886	1701	1553	1328	1256	1222
MAX	1330	1310	1800	1800	1750	1550	2050	2070	2100	1420	1430	1270
MIN	1250	1090	1090	1730	1400	1030	1290	1370	413	1100	1210	994
AC-FT	80450	69140	91460	108500	95190	87490	112200	104600	92400	81680	77240	72720

CAL YR 1975 TOTAL 619421 MEAN 1697 MAX 5630 MIN 420 AC-FT 1229000
WTR YR 1976 TOTAL 540997 MEAN 1478 MAX 2100 MIN 413 AC-FT 1073000

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at tailrace of powerplant at Boysen Dam, 0.6 mi (1.0 km) upstream from discharge station.

PERIOD OF RECORD.--Water years 1954, 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: November 1953 to September 1954, December 1960 to current year.
WATER TEMPERATURES: December 1953 to September 1954, December 1960 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,380 micromhos June 18, 1954; minimum daily, 367 micromhos July 1, 1976.
WATER TEMPERATURES: Maximum, 22.0°C on several days in 1961, 1970, 1971; minimum, 0.0°C Jan. 6-9, 1976.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 851 micromhos Apr. 2; minimum daily, 367 micromhos July 1.
WATER TEMPERATURES: Maximum, 21.0°C on several days in July and August; minimum, 0.0°C Jan. 6-9.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 04...	1145	1320	580	16.0	2	7.2	0	170	55
NOV 12...	1330	1090	610	8.5	5	10.1	81	180	82
DEC 13...	1230	1740	--	3.5	--	10.9	81	190	67
JAN 07...	1310	1770	650	1.5	2	11.7	<1	210	71
FEB 11...	1300	1710	--	2.5	1	--	--	210	66
MAR 11...	1330	1570	710	3.5	2	8.7	<1	210	82
APR 10...	1230	2050	660	7.0	1	10.4	<1	230	81
MAY 15...	1215	1540	760	10.5	5	9.6	<1	230	74
JUN 07...	1300	1740	728	18.0	9	7.2	<1	210	87
JUL 07...	1200	1190	575	20.5	5	6.7	<1	180	60
AUG 09...	1330	1230	580	21.0	8	5.6	<1	170	55
SEP 11...	1310	1260	620	19.0	30	5.7	2	160	37

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 04...	47	14	50	1.6	2.3	140	0	115	160
NOV 12...	49	15	53	1.7	2.1	120	0	98	180
DEC 13...	52	16	54	1.7	2.8	150	0	123	180
JAN 07...	56	17	55	1.7	2.3	170	0	139	180
FEB 11...	55	18	59	1.8	3.3	170	3	144	180
MAR 11...	54	17	60	1.8	2.6	150	3	128	200
APR 10...	61	19	61	1.7	2.3	170	6	149	200
MAY 15...	60	21	70	2.0	2.6	190	0	156	200
JUN 07...	54	19	60	1.8	2.8	150	0	123	200
JUL 07...	46	15	48	1.6	2.1	140	3	120	180
AUG 09...	45	15	48	1.6	2.1	140	0	115	150
SEP 11...	42	15	51	1.7	2.3	150	0	123	150

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT								
04...	5.4	.4	10	358	.49	1280	.09	.04
NOV								
12...	6.0	.4	8.3	370	.50	1090	.11	.02
DEC								
13...	7.1	.5	9.3	394	.54	1850	.09	.03
JAN								
07...	8.7	.4	9.9	413	.56	1970	.11	.02
FEB								
11...	8.7	.5	9.8	423	.58	1950	.09	.02
MAR								
11...	11	.5	9.1	427	.58	1810	.02	.01
APR								
10...	8.7	.5	10	458	.62	2540	.09	.01
MAY								
15...	9.0	.4	9.3	470	.64	1950	.20	.02
JUN								
07...	8.2	.4	10	432	.59	2030	.23	.02
JUL								
07...	5.6	.5	11	358	.49	1150	.14	.02
AUG								
09...	5.6	.4	11	350	.48	1160	.14	.02
SEP								
11...	6.6	.4	10	352	.48	1200	.07	.01

DATE	TIME	TOTAL PCB (UG/L)	PCB IN BOTTOM MA-TERIAL (UG/KG)	POLY-CHLO-RINATED NAPH-THA-LENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA-TERIAL (UG/KG)
SEP												
22...	1115	.0	0	.00	.00	.0	.0	0	.00	.0	.00	.0

DATE	TOTAL DDT (UG/L)	DDT IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DI-AZINON (UG/L)	TOTAL DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG)	TOTAL HEPTA-CHLOR POXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG)
SEP												
22...	.00	.0	.00	.00	.0	.00	.0	.00	.00	.0	.00	.0

DATE	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL MALA-THION (UG/L)	TOTAL METHYL PARA-THION (UG/L)	TOTAL METHYL TRI-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
SEP												
22...	.00	.0	.00	.00	.00	.00	0	0	.00	.06	.00	.00

06259000 WIND RIVER BELOW BOYSEN RESERVOIR, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	11.0	5.0	1.0	3.0	4.0	5.0	8.0	15.0	17.0	21.0	20.0
2	15.0	11.0	5.0	1.0	3.0	4.0	5.0	9.0	17.0	17.0	20.0	19.0
3	15.0	11.0	9.0	1.0	3.0	3.0	5.0	9.0	16.0	17.0	20.0	19.0
4	15.0	10.0	6.0	1.0	2.0	3.0	5.0	9.0	16.0	17.0	20.0	19.0
5	15.0	10.0	6.0	1.0	2.0	3.0	5.0	9.0	16.0	17.0	21.0	19.0
6	15.0	10.0	6.0	0.0	2.0	3.0	6.0	9.0	16.0	18.0	21.0	19.0
7	15.0	10.0	6.0	0.0	1.0	3.0	6.0	9.0	16.0	18.0	21.0	18.0
8	15.0	10.0	6.0	0.0	1.0	3.0	6.0	9.0	16.0	18.0	20.0	18.0
9	14.0	9.0	6.0	0.0	1.0	3.0	6.0	11.0	17.0	18.0	20.0	18.0
10	14.0	10.0	6.0	3.0	1.0	4.0	6.0	10.0	17.0	18.0	20.0	17.0
11	14.0	10.0	4.0	3.0	3.0	4.0	6.0	10.0	17.0	19.0	19.0	17.0
12	14.0	10.0	4.0	3.0	3.0	4.0	6.0	10.0	17.0	19.0	19.0	17.0
13	13.0	9.0	4.0	3.0	3.0	4.0	6.0	12.0	17.0	19.0	19.0	17.0
14	13.0	15.0	4.0	3.0	3.0	4.0	6.0	12.0	16.0	18.0	19.0	17.0
15	13.0	15.0	4.0	3.0	3.0	4.0	6.0	12.0	16.0	18.0	19.0	17.0
16	13.0	15.0	3.0	3.0	3.0	5.0	6.0	12.0	16.0	18.0	19.0	17.0
17	12.0	11.0	3.0	3.0	3.0	5.0	6.0	13.0	15.0	20.0	19.0	17.0
18	12.0	11.0	2.0	3.0	3.0	5.0	7.0	13.0	15.0	20.0	19.0	17.0
19	13.0	11.0	2.0	3.0	3.0	4.0	7.0	13.0	15.0	20.0	19.0	17.0
20	13.0	6.0	2.0	3.0	3.0	5.0	7.0	13.0	15.0	20.0	19.0	17.0
21	12.0	6.0	2.0	3.0	3.0	5.0	7.0	13.0	15.0	20.0	19.0	17.0
22	12.0	5.0	2.0	3.0	3.0	5.0	7.0	13.0	15.0	21.0	19.0	17.0
23	12.0	5.0	2.0	3.0	3.0	5.0	7.0	14.0	15.0	21.0	19.0	17.0
24	12.0	5.0	2.0	3.0	3.0	5.0	7.0	14.0	15.0	21.0	20.0	17.0
25	12.0	5.0	1.0	3.0	4.0	5.0	8.0	14.0	16.0	21.0	20.0	17.0
26	12.0	5.0	1.0	3.0	5.0	5.0	7.0	13.0	16.0	21.0	20.0	17.0
27	11.0	5.0	1.0	3.0	4.0	5.0	7.0	14.0	16.0	21.0	20.0	16.0
28	11.0	5.0	1.0	3.0	4.0	5.0	8.0	14.0	16.0	21.0	20.0	16.0
29	11.0	5.0	1.0	3.0	4.0	5.0	8.0	15.0	16.0	21.0	20.0	16.0
30	11.0	5.0	1.0	3.0	---	5.0	8.0	15.0	17.0	21.0	20.0	16.0
31	11.0	---	1.0	3.0	---	5.0	---	15.0	---	21.0	20.0	---
MONTH	13.0	9.0	3.5	2.5	3.0	4.5	6.5	12.0	16.0	19.0	19.5	17.5
YEAR	MAX	21.0	MIN	0.0	MEAN	10.5						

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	559	585	649	625	653	668	671	738	722	367	538	535
2	559	586	581	625	656	660	851	732	725	579	518	537
3	561	591	613	627	661	660	760	760	740	587	520	537
4	556	570	613	630	661	664	716	752	718	568	522	544
5	564	551	613	631	656	669	711	736	720	560	580	540
6	561	591	613	641	656	664	678	742	713	562	530	535
7	557	591	616	632	656	662	684	749	670	565	542	560
8	552	601	619	638	653	660	696	728	666	571	530	546
9	553	613	614	638	649	665	705	741	656	565	547	550
10	558	612	606	638	658	677	707	738	656	568	530	594
11	553	612	598	641	660	677	703	740	652	574	540	551
12	557	612	601	641	654	677	702	739	637	569	534	549
13	557	617	605	641	652	677	714	744	658	585	532	556
14	573	591	610	643	652	666	714	749	659	599	538	551
15	568	607	610	645	652	672	792	728	626	562	528	546
16	568	614	620	645	652	672	770	741	634	569	530	551
17	543	617	622	647	652	672	795	751	702	579	535	551
18	563	617	620	647	660	666	779	753	650	559	528	556
19	563	622	621	647	652	683	754	751	597	550	532	549
20	568	612	616	648	659	683	757	747	583	574	529	559
21	568	614	616	642	662	682	735	748	628	553	533	546
22	584	613	616	642	662	682	742	752	621	550	535	554
23	584	557	620	643	662	683	739	752	620	548	530	549
24	578	596	611	654	667	680	734	754	584	550	527	551
25	573	612	622	648	660	687	738	755	568	581	528	543
26	580	618	622	643	660	686	749	755	583	530	535	546
27	574	615	626	655	658	689	735	765	578	540	535	551
28	579	606	626	655	665	699	743	762	574	536	535	551
29	576	607	631	653	668	683	732	750	589	543	535	550
30	574	607	631	644	---	688	737	757	575	551	541	549
31	585	---	631	655	---	680	---	767	---	532	540	---
MONTH	566	602	617	642	658	675	735	747	643	550	534	550
YEAR	MAX	851	MIN	367	MEAN	627						

06259600 BIGHORN RIVER BELOW BLACK WILLOW DRAW, NEAR LUCERNE, WY

LOCATION.--Lat 43°41'53", long 108°09'25", in NE¼SE¼NE¼ sec.17, T.43 N., R.94 W., Hot Springs County, Hydrologic Unit 10080007, 1.9 mi (3.1 km) downsteam from Black Willow Draw, 2.7 mi (4.3 km) south of Lucerne, 3.9 mi (6.3 km) upstream from bridge on Black Mountain Road, and 4.5 mi (7.2 km) northeast of Thermopolis.

PERIOD OF RECORD.--May to September 1976.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: May to September 1976.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--No record July 30, Aug. 5-18. Records furnished by Wyoming Game and Fish Commission.

EXTREMES FOR PERIOD MAY TO SEPTEMBER.--
WATER TEMPERATURES: Maximum, 20.5°C July 18; minimum, 10.0°C June 14.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1			---	---	18.0	14.5	19.5	18.0	17.0	16.5	17.0	16.5
2			---	---	18.0	15.0	19.0	16.0	17.0	16.0	17.0	16.5
3			---	---	18.5	15.5	18.0	15.0	16.5	16.0	17.0	16.5
4			---	---	19.5	14.5	19.0	16.0	16.5	16.0	17.0	16.5
5			---	---	18.0	15.5	19.5	18.0	---	---	17.0	16.5
6			---	---	16.0	14.5	19.5	17.0	---	---	17.0	16.5
7			---	---	18.5	15.0	19.5	18.0	---	---	16.5	16.5
8			---	---	19.0	15.5	20.0	18.0	---	---	16.5	15.5
9			---	---	18.5	16.0	20.0	18.5	---	---	15.5	15.0
10			---	---	19.0	15.5	20.0	19.5	---	---	16.0	15.5
11			---	---	19.5	16.0	20.0	19.0	---	---	16.5	16.0
12			---	---	20.0	16.0	19.5	18.5	---	---	16.0	16.0
13			---	---	17.0	13.5	20.0	17.0	---	---	16.5	16.0
14			---	---	13.5	10.0	20.0	17.0	---	---	16.5	16.0
15			---	---	17.0	12.0	20.0	17.0	---	---	16.5	16.0
16			---	---	17.0	15.0	20.0	16.5	---	---	16.5	16.0
17			---	---	15.5	13.0	20.0	18.5	---	---	16.5	16.0
18			---	---	15.5	12.0	20.5	19.0	18.0	---	17.0	16.5
19			---	---	18.0	13.5	20.0	19.0	18.0	18.0	16.5	13.5
20			14.0	---	18.0	14.5	20.0	18.0	18.0	17.0	16.5	14.0
21			15.0	12.0	18.0	15.0	19.5	16.5	18.0	17.0	18.0	15.0
22			14.0	13.0	17.0	15.0	19.5	18.5	18.0	17.0	17.0	15.5
23			14.0	12.0	15.5	14.0	19.5	18.5	18.5	18.0	17.0	15.5
24			15.5	12.0	17.0	13.5	19.5	18.0	18.0	17.0	17.0	15.0
25			15.0	13.5	16.5	14.5	18.5	18.0	18.0	18.0	16.0	14.5
26			15.5	13.0	16.5	14.5	18.5	16.5	18.0	16.5	16.0	14.5
27			16.5	13.0	18.0	14.5	13.0	17.0	16.5	16.0	16.0	14.0
28			17.0	14.0	18.5	16.0	17.0	16.5	17.0	16.0	16.0	14.0
29			16.5	13.5	18.0	16.5	17.0	16.5	17.0	16.5	16.0	14.0
30			15.5	12.0	19.5	16.0	---	---	17.0	17.0	16.0	14.0
31			16.5	13.5	---	---	17.0	16.5	17.0	16.5	---	---
MONTH			---	---	20.0	10.0	20.5	15.0	---	---	18.0	13.5
YEAR	20.5	10.0										

06260000 SOUTH FORK OWL CREEK NEAR ANCHOR, WY

LOCATION.--Lat 43°39'53", long 108°52'02", in sec.28, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, on left bank 0.9 mi (1.4 km) upstream from normal high-water line of Anchor Reservoir, 2.3 mi (3.7 km) upstream from Anchor Dam, 3.2 mi (5.1 km) southwest of Anchor, and 34 mi (55 km) west of Thermopolis.

DRAINAGE AREA (REVISED).--85.5 mi^2 (221 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to May 1932, August 1939 to September 1943 (no winter records except 1941 water year), April 1959 to current year.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,504.47 ft (1,982.562 m) above mean sea level. See WSP 1916 for history of changes prior to Aug. 11, 1965. Aug. 11, 1965, to Nov. 3, 1968, water-stage recorder and concrete flume 0.7 mi (1.1 km) downstream at different datum. Nov. 4, 1968, to June 5, 1970, at present site and datum. June 6, 1970, to Sept. 30, 1972, on right bank at present site at datum 0.14 ft (0.043 m) lower.

REMARKS.--Records fair except those for November to March and those above 100 ft^3/s (2.83 m^3/s), which are poor. No diversion above station.

AVERAGE DISCHARGE.--18 years (water years 1941, 1960-76), 36.1 ft^3/s (1.022 m^3/s), 26,150 acre-ft/yr (32.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,940 ft^3/s (54.9 m^3/s) July 25, 1941, gage height, 8.73 ft (2.661 m), present site and datum, from rating curve extended above 190 ft^3/s (5.38 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.10 ft^3/s (0.003 m^3/s) Jan. 11-22, 1960.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.66 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 14	2200	258	7.31	5.01	1.527	June 22	0030	292	8.27	5.08	1.548
May 19	2330	247	7.00	5.00	1.524	July 1	0030	231	6.54	4.86	1.481
June 3	0530	436	12.3	5.39	1.643	Aug. 1	0930	*520	14.7	5.73	1.746

Minimum daily discharge, 3.7 ft^3/s (0.10 m^3/s) Mar. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	13	6.4	7.2	7.9	4.6	10	10	187	169	182	18
2	12	13	9.0	6.3	7.5	4.0	11	18	255	128	199	17
3	12	13	9.0	5.3	7.2	3.7	10	27	286	102	92	17
4	12	12	8.4	4.8	6.9	4.0	12	36	263	117	66	16
5	12	12	8.2	5.3	5.6	5.0	17	24	249	125	58	16
6	12	12	8.2	6.0	4.8	5.6	22	32	255	121	53	16
7	12	11	8.4	6.0	5.0	5.0	18	25	292	121	49	17
8	13	6.3	8.4	5.5	5.2	5.4	14	42	242	121	44	16
9	11	5.8	8.2	5.5	6.0	5.4	21	70	255	121	42	15
10	13	5.5	7.8	6.3	5.6	5.4	18	81	231	117	39	13
11	12	4.5	7.8	6.9	5.4	5.4	23	100	185	103	37	13
12	12	4.8	7.6	7.2	5.4	5.0	34	60	110	97	35	14
13	15	5.5	7.4	7.0	5.6	5.2	30	77	94	84	33	15
14	13	8.0	6.6	6.6	5.6	5.4	20	138	80	73	34	13
15	12	15	7.0	6.6	5.4	5.4	18	142	71	69	32	13
16	13	11	6.4	7.0	5.2	5.6	16	71	73	67	32	12
17	13	9.5	5.6	7.4	5.2	6.2	10	90	73	66	28	12
18	12	9.0	6.4	7.8	5.0	6.8	11	156	73	67	27	13
19	12	8.0	6.9	6.4	4.8	6.8	9.2	178	78	66	27	22
20	12	6.0	6.9	5.8	4.5	6.0	9.0	180	130	57	25	21
21	12	5.2	6.9	6.0	4.6	6.4	11	146	192	55	24	16
22	13	5.6	6.9	6.4	4.6	6.8	12	130	192	52	23	14
23	8.5	6.5	7.2	6.6	4.8	6.8	10	105	136	51	23	18
24	7.0	8.0	7.5	6.4	4.9	6.6	8.7	102	103	47	22	15
25	9.0	7.6	7.5	5.4	5.0	6.6	15	89	94	50	22	17
26	10	6.6	7.5	6.0	5.2	6.4	12	103	76	52	20	16
27	11	6.8	7.5	6.6	5.4	6.0	7.9	156	80	46	19	15
28	10	7.0	7.9	6.6	5.2	5.6	9.2	218	103	43	19	14
29	10	6.8	7.5	6.9	5.0	6.6	8.7	229	121	40	18	13
30	11	5.8	7.5	6.9	---	7.5	7.7	224	140	35	18	12
31	12	---	7.5	7.2	---	8.5	---	216	---	35	19	---
TOTAL	361.5	250.8	232.0	197.9	158.5	179.7	435.4	3275	4719	2497	1361	459
MEAN	11.7	8.36	7.48	6.38	5.47	5.80	14.5	106	157	80.5	43.9	15.3
MAX	15	15	9.0	7.8	7.9	8.5	34	229	292	169	199	22
MIN	7.0	4.5	5.6	4.8	4.5	3.7	7.7	10	71	35	18	12
AC-FT	717	497	460	393	314	356	864	6500	9360	4950	2700	910

CAL YR 1975 TOTAL 15885.6 MEAN 43.5 MAX 401 MIN 2.5 AC-FT 31510
WTR YR 1976 TOTAL 14126.8 MEAN 38.6 MAX 292 MIN 3.7 AC-FT 28020

06260000 SOUTH FORK OWL CREEK NEAR ANCHOR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)
OCT				
11...	1245	12	165	4.0
NOV				
15...	1325	A15	160	.5
DEC				
23...	1330	7.5	160	.0
FEB				
11...	1130	A5.4	170	.0
MAR				
10...	1430	A5.4	195	.0
APR				
16...	1415	14	125	3.0
MAY				
08...	1400	34	115	10.0
22...	0810	134	75	5.0
JUN				
03...	1400	218	67	9.0
21...	1415	117	66	12.0
JUL				
08...	1345	86	66	14.5
AUG				
10...	1430	39	110	13.0
SEP				
10...	1315	14	140	8.0

A Daily mean discharge.

06260400 SOUTH FORK OWL CREEK BELOW ANCHOR RESERVOIR, WY

LOCATION.--Lat 43°39'57", long 108°47'34", in sec.25, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, on left bank 1.6 mi (2.6 km) downstream from Anchor Dam and 30 mi (48 km) west of Thermopolis.

DRAINAGE AREA (REVISED).--131 mi² (339 km²).

WATER-DISHCARGE RECORDS

PERIOD OF RECORD.--April 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,120 ft (1,865 m), from topographic map.

REMARKS.--Records good except those for November to April, which are poor. No gage-height record Dec. 14 to Apr. 10. Flow regulated by Anchor dam. (See page 286.) No diversion above station.

AVERAGE DISCHARGE.--17 years, 21.9 ft³/s (0.620 m³/s), 15,870 acre-ft/yr (19.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 373 ft³/s (10.6 m³/s) May 26, 1967, gage height, 3.64 ft (1.109 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 240 ft³/s (6.80 m³/s) June 6, gage height, 3.54 ft (1.079 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	7.5	.18	0	.50	2.0	.50	8.2	211	66	22	11
2	8.2	7.8	.20	0	.50	1.7	.75	8.2	211	57	14	9.8
3	7.5	9.0	.20	0	.25	1.5	1.0	8.2	143	57	12	8.6
4	7.1	7.1	.23	0	.25	1.5	0	9.0	232	58	9.8	8.6
5	7.1	6.5	.23	0	.25	1.6	0	9.0	232	60	9.4	9.0
6	7.1	7.1	.23	0	.50	1.8	0	9.8	230	68	24	10
7	7.1	7.1	.23	0	.75	2.0	0	9.8	204	99	36	12
8	7.5	4.3	.23	0	.75	2.1	0	12	206	108	48	12
9	7.5	.97	.14	0	.75	2.2	0	31	206	118	55	12
10	7.5	.39	.02	0	1.0	2.3	0	33	206	131	53	9.8
11	7.5	.26	0	0	1.3	1.5	0	60	199	134	52	9.4
12	7.5	.76	0	0	1.2	1.3	0	82	195	132	51	9.4
13	7.8	1.5	0	0	1.2	1.4	0	91	188	127	37	9.8
14	7.8	3.5	0	0	1.2	1.4	0	51	178	125	28	9.8
15	7.8	6.3	0	0	1.0	1.4	0	94	158	115	27	9.8
16	7.8	6.2	.75	0	.75	1.5	.40	113	140	110	25	9.0
17	7.8	5.0	1.0	0	.50	1.5	8.0	105	115	102	25	9.0
18	7.8	4.0	1.5	0	.50	.50	9.8	100	85	94	28	9.8
19	7.8	3.5	2.0	0	.50	.50	9.4	94	60	90	39	12
20	8.2	2.0	2.0	0	.50	.50	9.0	100	68	124	37	21
21	8.6	.50	2.5	.25	.75	.50	8.6	107	78	57	35	12
22	9.6	.12	2.5	.25	1.0	.50	7.5	110	90	46	32	12
23	6.5	.14	2.0	.50	1.0	.50	9.4	100	84	42	32	14
24	1.4	.12	2.0	.50	1.0	.50	14	100	78	37	36	14
25	.50	.16	1.5	.50	1.0	.50	11	100	78	38	36	19
26	.65	.16	1.5	.25	1.3	.50	11	104	76	42	36	15
27	8.0	.16	1.5	.25	1.5	.50	10	120	75	39	17	13
28	6.0	.18	1.0	.25	2.0	.50	9.4	162	76	34	16	12
29	4.5	.18	.50	.50	2.5	.50	8.6	213	78	30	16	9.8
30	3.5	.18	.25	.50	---	.50	8.6	216	79	24	13	9.8
31	6.0	---	0	.50	---	.50	---	216	---	24	12	---
TOTAL	210.05	92.68	24.39	4.25	26.20	35.70	136.95	2576.2	4259	2388	913.2	343.2
MEAN	6.80	3.09	.79	.14	.90	1.15	4.57	83.1	142	77.0	29.5	11.4
MAX	10	9.0	2.5	.50	2.5	2.3	14	216	232	134	55	21
MIN	.50	.12	0	0	.25	.50	0	8.2	60	24	9.4	8.6
AC-FT	418	184	48	8.4	52	71	272	5110	8450	4740	1810	681

CAL YR 1975 TOTAL 5646.42 MEAN 15.5 MAX 140 MIN 0 AC-FT 11200
WTR YR 1976 TOTAL 11010.42 MEAN 30.1 MAX 232 MIN 0 AC-FT 21840

06260400 SOUTH FORK OWL CREEK BELOW ANCHOR RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)
OCT				
11...	1100	7.5	130	4.5
NOV				
15...	1115	5.9	200	1.5
DEC				
23...	1140	2.0	260	.0
FEB				
11...	1430	1.3	170	.0
MAR				
10...	1300	2.3	170	.0
MAY				
08...	1145	9.8	136	11.5
JUN				
03...	1100	225	80	9.5
21...	1205	76	84	13.5
JUL				
08...	1140	110	68	16.0
AUG				
10...	1230	55	120	15.0
SEP				
10...	1555	9.8	150	17.0

06264700 BIGHORN RIVER AT LUCERNE, WY

LOCATION.--Lat 43°44'10", long 108°09'38", in SE¼ sec.32, T.44 N., R.94 W., Hot Springs County, Hydrologic Unit 10080007, at bridge on Black Mountain road, 0.7 mi (1.1 km) upstream from Kirby Creek, 0.8 mi (1.3 km) east of Lucerne, and 1.0 mi (1.6 km) downstream from Owl Creek.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT											
04...	1315	360	16.0	200	69	55	16	52	1.6	2.8	160
NOV											
12...	1510	924	7.5	220	79	59	19	58	1.7	2.8	160
DEC											
13...	1430	1770	3.0	220	81	58	18	55	1.6	3.0	170
JAN											
07...	1610	1550	--	220	84	58	18	59	1.7	2.8	160
FEB											
11...	1350	1530	1.5	230	91	59	19	60	1.7	2.8	170
MAR											
10...	1515	1320	4.5	230	76	61	20	63	1.8	3.0	170
APR											
10...	1330	1900	9.5	240	86	64	19	63	1.8	2.8	170
MAY											
15...	1515	1590	12.5	280	120	70	26	80	2.1	3.7	190
JUN											
07...	1605	1540	20.5	230	110	58	21	64	1.8	2.6	140
JUL											
07...	1445	1090	24.0	270	130	65	25	75	2.0	3.7	150
AUG											
09...	1900	1030	22.5	200	69	52	17	50	1.5	2.1	160
SEP											
11...	1350	1290	19.0	190	59	50	17	54	1.7	2.6	160

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT											
04...	0	131	170	9.0	.5	9.2	395	.54	384	.02	.03
NOV											
12...	6	141	190	12	.5	8.9	438	.60	1090	.02	.04
DEC											
13...	0	139	190	10	.5	9.2	425	.58	2030	.09	.03
JAN											
07...	3	136	[illegible]	11	.4	9.3	437	.59	1830	.11	.02
FEB											
11...	0	139	[illegible]	11	.5	9.1	448	.61	1850	.05	.02
MAR											
10...	9	154	200	12	.5	8.1	465	.63	1660	.00	.03
APR											
10...	9	154	220	9.0	.5	9.3	478	.65	2450	.02	.01
MAY											
15...	0	156	290	13	.5	7.6	586	.80	2520	.05	.01
JUN											
07...	3	120	220	10	.5	10	461	.63	1920	.07	.02
JUL											
07...	12	143	280	11	.4	10	555	.75	1630	.00	.02
AUG											
09...	0	131	170	9.7	.5	12	389	.53	1080	.16	.03
SEP											
11...	0	131	160	11	.5	8.8	388	.53	1350	.02	.01

06265800 GOOSEBERRY CREEK AT DICKIE, WY

LOCATION.--Lat 44°00'00", long 108°45'25", in NE¼ sec.32, T.47 N., R.99 W., Hot Springs County, Hydrologic Unit 10080007, at left downstream wingwall of county bridge, 0.6 mi (1.0 km) downstream from Middle Creek, and 0.8 mi (1.3 km) northwest of Dickie.

DRAINAGE AREA.--95.0 mi^2 (246.0 km^2).

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,750 ft (1,753 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station.

AVERAGE DISCHARGE.--19 years, 13.8 ft^3/s (0.391 m^3/s), 10,000 acre-ft/yr (12.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130 ft^3/s (32.0 m^3/s) June 15, 1963, gage height, 5.66 ft (1.725 m), from rating curve extended above 170 ft^3/s (4.81 m^3/s) on basis of slope-area measurement of peak flow; no flow Sept. 8-13, 1959, Jan. 28 to Feb. 8, Aug. 5, 6, 18-25, 1961, Jan. 5-9, Aug. 19, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 97 ft^3/s (2.75 m^3/s) May 22, gage height, 2.10 ft (0.640 m); maximum gage height, 2.57 ft (0.783 m) Mar. 18 (backwater from ice); minimum daily discharge, 0.28 ft^3/s (0.008 m^3/s) July 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	7.3	4.4	3.5	3.1	2.8	6.0	29	48	16	5.4	2.5
2	4.1	8.0	5.0	3.2	3.2	2.7	6.0	40	45	14	20	2.0
3	4.1	7.3	4.6	3.4	3.2	2.7	5.8	47	44	16	12	1.9
4	4.1	7.0	4.6	3.5	2.8	2.6	8.0	43	43	10	11	1.8
5	3.8	6.6	4.6	3.8	2.5	3.0	15	43	43	10	12	1.8
6	3.8	6.2	4.5	3.8	2.6	3.7	26	45	43	9.5	8.0	1.8
7	3.6	6.2	4.8	3.6	2.8	3.6	28	45	38	9.5	6.2	2.7
8	6.2	5.6	4.7	3.7	3.0	3.9	21	42	32	7.3	4.8	3.6
9	7.3	3.0	4.6	3.8	3.3	4.2	32	47	28	6.6	4.5	3.2
10	5.6	3.1	4.5	3.7	3.0	4.8	24	49	25	5.2	4.5	2.5
11	4.8	3.1	4.4	3.5	3.0	4.6	22	55	26	5.2	5.6	2.2
12	4.8	3.3	4.3	3.6	3.1	4.2	27	50	33	7.6	6.6	2.3
13	9.5	4.4	3.8	3.7	3.1	4.2	25	44	26	5.9	4.5	3.2
14	10	4.9	3.0	3.5	3.1	4.4	19	51	35	3.4	4.3	3.2
15	8.5	5.0	3.2	3.5	3.0	4.4	18	67	33	2.7	3.6	3.2
16	7.3	5.0	3.0	3.9	2.9	4.4	18	61	28	2.0	3.2	2.7
17	6.6	5.0	2.9	3.9	2.9	4.8	15	61	28	1.8	2.7	2.5
18	5.9	5.0	3.0	3.4	2.9	5.2	18	64	34	1.9	3.0	4.4
19	5.9	4.6	3.1	3.1	2.8	5.2	16	76	28	1.0	3.4	27
20	5.2	3.4	3.2	3.2	2.8	4.6	12	78	25	1.0	2.5	12
21	5.2	3.6	3.5	3.3	2.6	4.6	14	70	25	1.1	2.2	7.3
22	5.9	3.8	3.8	3.4	2.6	4.6	14	82	26	.84	2.0	5.6
23	7.6	4.2	3.7	3.3	2.7	4.6	16	73	29	.84	2.0	10
24	6.6	5.2	3.9	3.1	2.8	4.4	16	72	23	.84	2.2	7.3
25	6.0	4.9	4.3	2.9	2.9	4.4	16	68	21	.44	2.2	7.3
26	6.4	4.2	4.4	3.1	3.0	4.2	20	64	20	.52	2.2	6.2
27	6.6	4.4	4.3	3.3	3.0	4.1	20	59	19	.60	2.3	6.2
28	6.4	4.4	3.5	3.4	3.0	3.8	18	61	17	.44	2.3	5.6
29	6.2	3.7	3.8	3.4	2.9	3.6	19	63	16	.28	2.2	4.3
30	6.8	4.0	4.0	3.4	---	3.8	20	59	16	.52	3.0	4.1
31	7.2	---	3.7	3.2	---	4.6	---	53	---	.68	3.0	---
TOTAL	186.3	146.4	123.1	107.1	84.6	126.7	534.8	1761	897	143.70	153.4	150.4
MEAN	6.01	4.88	3.97	3.45	2.92	4.09	17.8	56.8	29.9	4.64	4.95	5.01
MAX	10	8.0	5.0	3.9	3.3	5.2	32	82	48	16	20	27
MIN	3.6	3.0	2.9	2.9	2.5	2.6	5.8	29	16	.28	2.0	1.8
AC-FT	370	290	244	212	168	251	1060	3490	1780	285	304	298

CAL YR 1975 TOTAL 7222.30 MEAN 19.8 MAX 180 MIN 1.5 AC-FT 14330
WTR YR 1976 TOTAL 4414.50 MEAN 12.1 MAX 82 MIN .28 AC-FT 8760

06267400 EAST FORK NOWATER CREEK NEAR COLTER, WY

LOCATION.--Lat 43°54'55", long 107°55'46", in SE¼NE¼ sec.31, T.46 N., R.92 W., Washakie County, Hydrologic Unit 10080007, on left bank 50 ft (15 m) upstream from county road, 1.8 mi (2.9 km) upstream from mouth, 5.2 mi (8.4 km) southeast of Colter, and 7.0 mi (11.3 km) south of Worland.

DRAINAGE AREA.--149 mi^2 (386 km^2).

PERIOD OF RECORD.--October 1971 to current year.

REVISED RECORDS.--WDR WY-75-1: 1972-73.

GAGE.--Water-stage recorder. Altitude of gage is 4,165 ft (1,269 m), from topographic map.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--5 years, 5.51 ft^3/s (0.156 m^3/s), 3,990 acre-ft/yr (4.92 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,270 ft^3/s (36.0 m^3/s) July 6, 1975, gage height, 3.68 ft (1.122 m); no flow for most of each year.

Peak discharges for the water years 1972-75 above base of 300 ft^3/s (8.50 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 2, 1971	Unknown	Unknown		Unknown	
Oct. 18, 1971	Unknown	Unknown		Unknown	
Feb. 20, 1972	2330	*1170	33.1	3.52	1.073
Feb. 27, 1972	2100	752	21.3	2.82	.860
June 4, 1972	0030	530	15.0	a2.45	.747
Aug. 24, 1972	0200	716	20.3	2.76	.841
May 1, 1973	0430	382	10.8	2.26	.689
June 2, 1973	0530	359	10.2	a2.23	.680
July 23, 1973	0900	*1020	28.9	3.27	.997
July 30, 1973	0330	530	15.0	2.45	.747

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Sept. 2, 1973	1800	303	8.58	2.07	.631
Sept. 8, 1973	1530	548	15.5	2.48	.756
Oct. 10, 1973	2200	*390	11.0	2.27	.692
Apr. 13, 1974	2100	351	9.94	2.18	.664
May 8, 1975	2200	1140	32.3	3.47	1.058
May 20, 1975	2230	674	19.1	2.54	.774
July 6, 1975	0500	*1270	36.0	3.68	1.122
bAug. 12, 1975	Unknown	1030	29.2	3.28	1.000

a From floodmark
b About

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s (8.50 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Feb. 26	2100	a600	17.0	b3.22	0.981
May 30	0300	314	8.89	2.09	.637
Sept. 19	1000	*740	21.0	c2.8	0.85

a Estimanted from velocity-area study.
b Backwater from ice.
c From floodmark.

No flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0				0	5.0		0	.35		1.6	0
2	0				0	1.0		0	0		4.6	0
3	0				0	.10		0	0		35	0
4	0				0	.05		0	0		.80	0
5	0				0	0		0	.79		0	0
6	0				0	0		0	2.7		0	0
7	0				0	0		0	.02		0	0
8	0				0	0		0	0		0	0
9	0				0	10		0	0		0	0
10	0				0	50		0	0		0	0
11	0				0	10		0	0		0	0
12	0				0	.50		0	0		0	0
13	0				0	1.0		0	0		0	0
14	0				70	1.0		0	16		0	0
15	6.6				50	3.0		3.2	10		0	0
16	.71				15	40		11	.50		0	0
17	0				5.0	25		.37	0		0	0
18	0				4.0	22		0	.08		0	0
19	0				3.0	24		0	1.1		0	154
20	0				2.5	13		5.9	.34		0	4.9
21	0				2.5	.58		.76	0		0	.73
22	0				2.0	.01		0	0		0	.03
23	0				2.0	.47		0	0		0	13
24	1.8				2.0	6.5		.90	0		0	4.2
25	4.2				100	1.8		.46	0		0	.68
26	1.3				250	.07		0	0		0	.02
27	2.1				150	0		0	0		0	.04
28	2.4				30	0		0	0		0	0
29	.92				10	0		0	0		0	0
30	.23				---	0		31	0		0	0
31	0	---			---	0	---	1.3	---		0	---
TOTAL	20.26	0	0	0	698.0	215.08	0	54.89	31.88	0	42.00	177.60
MEAN	.65	0	0	0	24.1	6.94	0	1.77	1.06	0	1.35	5.92
MAX	6.6	0	0	0	250	50	0	31	16	0	35	154
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	40	0	0	0	1380	427	0	109	63	0	83	352

CAL YR 1975 TOTAL 2553.95 MEAN 7.00 MAX 608 MIN 0 AC-FT 5070
WTR YR 1976 TOTAL 1239.71 MEAN 3.39 MAX 250 MIN 0 AC-FT 2460

06268600 BIGHORN RIVER AT WORLAND, WY

LOCATION.--Lat 44°00'53", long 107°58'08", in SW¼NE¼ sec.25, T.47 N., R.93 W., Washakie County, Hydrologic Unit 10080007, 40 ft (12 m) downstream from former gaging station, at bridge on U.S. Highway 20 at Worland, and 0.5 mi (0.8 km) downstream from Fifteen Mile Creek.

DRAINAGE AREA.--10,810 mi² (27,998 km²).

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT 09...	1745	980	13.0	260	120	62	24	78	1.9	3.3	160
NOV 13...	1700	1040	6.5	280	150	73	24	78	2.0	3.7	150
DEC 20...	0900	1750	1.0	260	120	68	23	77	2.1	3.3	170
FEB 11...	1540	1980	3.0	260	140	65	23	73	2.0	3.3	140
MAR 12...	1145	1880	.5	250	100	65	22	75	2.1	3.5	180
APR 19...	1100	1680	9.5	290	110	74	24	92	2.4	4.2	220
MAY 11...	1710	990	14.5	240	100	58	24	79	2.2	2.8	160
JUN 08...	1020	751	20.0	270	110	69	24	80	2.1	3.3	200
14...	1140	146	11.0	350	140	89	31	120	2.8	4.4	260
JUL 09...	1100	138	22.0	300	130	73	28	94	2.4	3.5	210
AUG 09...	1550	435	24.0	280	110	70	25	92	2.4	3.0	210
SEP 11...	1440	470	17.5	250	78	63	23	88	2.4	3.5	210

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 09...	6	141	230	16	.5	9.0	505	.69	1340	.05	.02
NOV 13...	6	133	280	19	.6	7.8	566	.77	1590	.05	.01
DEC 20...	0	139	260	15	.5	11	537	.73	2540	.16	.00
FEB 11...	6	125	250	15	.6	8.0	515	.70	2750	.02	.04
MAR 12...	0	148	260	16	.6	9.7	535	.73	2720	.02	.07
APR 19...	0	180	280	16	.6	10	615	.84	2790	.25	.05
MAY 11...	3	136	260	16	.6	7.4	534	.73	1430	.02	.02
JUN 08...	0	164	270	16	.5	8.8	570	.78	1160	.23	.04
14...	0	213	370	24	.7	11	782	1.06	308	.99	.04
JUL 09...	0	172	300	19	.7	8.2	641	.87	239	1.1	.03
AUG 09...	0	172	270	19	.6	14	599	.81	704	.86	.07
SEP 11...	0	172	240	13	.6	9.6	546	.74	693	.52	.01

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY

LOCATION.--Lat 44°00'48", long 107°25'39", in SW¼NW¼ sec.27, T.47 N., R.88 W., Washakie County, Hydrologic Unit 10080008, on right bank 1.7 mi (2.7 km) southeast of Ten Sleep and 4.3 mi (6.9 km) upstream from Tensleep Creek.

DRAINAGE AREA.--803 mi^2 (2,080 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1938 to September 1943, March 1950 to December 1955 (published as Nowood Creek near Tensleep), October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,420 ft (1,347 m), from topographic map. May 6, 1938, to Sept. 30, 1943, nonrecording gage at site 200 ft (61 m) downstream at different datum. Mar. 17, 1950, to Dec. 31, 1955, water-stage recorder at site 100 ft (30 m) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 550 acres (2.23 km^2) above station.

AVERAGE DISCHARGE.--14 years (water years 1939-43, 1951-55, 1973-76), 110 ft^3/s (3.115 m^3/s), 79,700 acre-ft/yr (98.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,330 ft^3/s (94.3 m^3/s) June 16, 1955, gage height, 12.3 ft (3.75 m), from floodmark, site and datum then in use, from rating curve extended above 600 ft^3/s (17.0 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height observed, 13.0 ft (3.96 m) Mar. 12, 13, 1942 (ice jam), site and datum then in use; minimum daily discharge, 0.70 ft^3/s (0.020 m^3/s) Aug. 13, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 11	0230	ice jam		*8.20	2.499
May 12	0600	*530	15.0	6.03	1.838

Minimum daily discharge, 12 ft^3/s (0.34 m^3/s) July 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67	93	80	75	72	70	93	151	151	70	37	35
2	64	93	100	65	72	65	94	156	136	59	82	36
3	67	93	110	60	68	70	96	184	121	59	119	37
4	69	93	110	65	64	65	100	217	110	65	129	35
5	72	92	110	70	60	70	94	295	100	65	70	35
6	71	92	106	72	55	80	96	332	92	54	52	35
7	71	92	100	72	58	100	110	320	111	44	47	38
8	79	92	98	73	70	130	121	355	121	37	39	41
9	94	92	100	74	78	160	118	410	90	34	36	42
10	94	92	100	78	78	180	118	432	75	34	39	38
11	90	90	92	76	80	165	124	478	64	29	40	41
12	90	80	90	74	80	140	126	498	74	25	39	44
13	92	86	88	74	80	140	136	392	71	22	38	51
14	99	90	80	74	78	140	162	352	96	20	38	56
15	105	90	75	78	76	140	163	408	118	18	38	53
16	100	90	80	82	74	140	167	398	111	16	38	55
17	98	90	75	86	74	150	184	330	136	15	35	53
18	96	90	70	82	74	170	163	298	148	15	34	56
19	94	90	75	75	74	160	150	278	136	12	33	171
20	94	86	80	70	72	120	143	285	116	15	33	92
21	92	64	80	72	70	110	136	280	105	18	36	85
22	89	70	80	74	66	108	131	259	98	22	38	74
23	93	80	80	74	70	121	136	259	104	21	34	82
24	100	85	80	70	72	116	155	288	113	18	32	75
25	98	80	85	68	74	116	148	267	113	18	32	79
26	98	75	90	64	80	114	155	223	96	22	31	80
27	100	80	90	68	80	106	205	197	90	21	31	80
28	99	80	85	70	78	102	180	172	93	20	31	83
29	98	75	85	72	76	99	172	172	89	21	29	83
30	93	70	85	72	---	94	162	199	80	18	28	80
31	92	---	80	72	---	93	---	171	---	20	30	---
TOTAL	2758	2565	2739	2251	2103	3634	4138	9056	3158	927	1368	1845
MEAN	89.0	85.5	88.4	72.6	72.5	117	138	292	105	29.9	44.1	61.5
MAX	105	93	110	86	80	180	205	498	151	70	129	171
MIN	64	64	70	60	55	65	93	151	64	12	28	35
AC-FT	5470	5090	5430	4460	4170	7210	8210	17960	6260	1840	2710	3660

CAL YR 1975 TOTAL 64819 MEAN 178 MAX 1540 MIN 26 AC-FT 128600
WTR YR 1976 TOTAL 36542 MEAN 99.8 MAX 498 MIN 12 AC-FT 72480

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV											
01...	1015	93	5.0	420	240	120	33	20	.4	1.6	220
DEC											
06...	1130	108	1.0	450	270	120	34	13	.3	2.1	220
JAN											
08...	1115	A73	.0	420	230	120	32	26	.5	2.1	230
FEB											
09...	1125	A70	.0	410	220	110	33	14	.3	1.9	230
MAR											
11...	1115	A165	.0	270	160	76	19	30	.8	3.3	130
APR											
02...	1240	96	2.0	450	310	120	36	23	.5	1.9	170
MAY											
01...	1050	150	9.5	280	130	78	22	13	.3	1.9	180
21...	1310	202	17.5	190	83	52	15	7.6	.2	1.6	130
JUN											
04...	1200	113	20.0	320	160	85	26	19	.5	2.6	190
JUL											
06...	1140	53	24.0	460	270	120	39	36	.7	2.1	230
AUG											
06...	1150	52	24.0	490	300	130	37	39	.8	4.2	230
SEP											
04...	1045	34	16.5	500	310	130	43	39	.8	2.8	230

A Daily mean discharge.

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV											
01...	0	180	290	1.8	.5	8.9	582	.79	146	.11	.03
DEC											
06...	0	180	260	2.8	.4	12	557	.76	162	.45	.11
JAN											
08...	0	189	260	1.7	.4	12	574	.78	113	.50	.04
FEB											
09...	0	189	240	1.7	.4	12	533	.72	112	.54	.09
MAR											
11...	0	107	220	3.5	.4	8.4	428	.58	191	.27	.02
APR											
02...	3	144	320	1.7	.5	9.4	600	.82	152	.20	.06
MAY											
01...	3	153	150	1.8	.2	12	371	.50	150	.36	.13
21...	0	107	98	1.8	.2	11	252	.34	192	.27	.29
JUN											
04...	0	156	210	1.9	.4	11	449	.61	137	.18	.11
JUL											
06...	0	189	340	4.5	.6	9.4	665	.90	95.2	.00	.02
AUG											
06...	0	189	360	2.6	.5	13	705	.96	99.0	.02	.17
SEP											
04...	0	189	390	4.7	.5	9.1	729	.99	66.9	.02	.01

06270000 NOWOOD RIVER NEAR TEN SLEEP, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
NOV 01...	1015	5.0	93	55	14	--	--	--	--	--	--	--
DEC 06...	1130	1.0	108	194	57	--	--	--	--	--	--	--
JAN 08...	1115	.0	A73	52	10	--	--	--	--	--	--	--
FEB 09...	1125	.0	A78	89	19	--	--	--	--	--	--	--
MAR 11...	1115	.0	A165	2390	1070	72	88	100	--	--	--	--
APR 02...	1240	2.0	94	207	53	--	--	--	--	--	--	--
MAY 01...	1050	9.5	150	344	139	--	--	--	--	--	--	--
21...	1310	17.5	282	1480	1130	14	24	56	70	79	98	100
JUN 04...	1200	20.0	113	232	71	--	--	--	--	--	--	--
JUL 06...	1140	24.0	53	36	5.2	--	--	--	--	--	--	--
AUG 06...	1150	24.0	52	412	58	--	--	--	--	--	--	--
SEP 04...	1045	16.5	34	23	2.1	--	--	--	--	--	--	--

A Daily mean discharge.

DATE	TIME	NUMBER OF SAM-PLING POINTS	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
MAY 21...	1310	--	17.5	282	3	6	23	36
JUN 04...	1200	5	20.0	113	19	38	60	89

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAY 21...	38	42	48	56	70	94	100
JUN 04...	92	95	97	99	100	--	--

06273500 PAINT ROCK CREEK NEAR MOUTH, BELOW HYATTVILLE, WY

LOCATION.--Lat 44°12'20", long 107°42'54", in SW¼SE¼NW¼ sec.19, T.49 N., R.90 W., Big Horn County, Hydrologic Unit 10080008, at bridge on county road, 0.5 mi (0.8 km) south of State Secondary Highway 0201, 1.0 mi (1.6 km) upstream from mouth, and 6.4 mi (10.3 km) southwest of Hyattville.

DRAINAGE AREA.--376 mi² (974 km²), approximately.

PERIOD OF RECORD.--Water years 1951-53, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV 01...	1215	80	2.0	330	170	89	26	30	.7	1.9	200
DEC 06...	1230	65	2.0	360	180	96	29	27	.6	1.6	220
JAN 08...	1345	50	--	360	170	99	29	30	.7	2.1	230
FEB 09...	1340	77	.0	320	150	86	26	28	.7	2.1	210
MAR 11...	1320	61	.5	370	220	110	26	32	.7	3.3	180
APR 02...	1430	49	8.5	340	180	89	29	30	.7	1.6	180
MAY 01...	1245	25	5.0	440	280	120	35	52	1.1	2.3	200
JUN 04...	1450	1390	12.0	56	11	16	3.8	4.7	.3	1.6	55
JUL 06...	1425	622	17.0	74	23	20	5.7	5.3	.3	.2	62
AUG 06...	1210	113	17.0	270	140	73	20	20	.5	3.7	160
SEP 04...	1145	23	--	550	320	150	42	67	1.2	3.0	280

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 01...	0	164	240	1.8	.5	11	495	.67	107	.08	.01
DEC 06...	0	180	230	1.8	.5	12	511	.70	89.7	.18	.00
JAN 08...	0	189	240	1.7	.3	12	528	.72	71.3	.27	.00
FEB 09...	0	172	200	1.7	.4	11	457	.62	95.0	.25	.04
MAR 11...	0	148	290	4.2	.4	9.4	563	.77	92.7	.18	.35
APR 02...	6	158	250	2.4	.4	9.0	503	.68	66.5	.02	.02
MAY 01...	0	164	380	2.5	.5	9.2	701	.95	47.3	.02	.01
JUN 04...	0	45	21	1.9	.1	4.2	81	.11	304	.05	.06
JUL 06...	0	51	35	.0	.2	5.4	103	.14	173	.02	.03
AUG 06...	0	131	180	1.9	.3	10	390	.53	119	.52	.05
SEP 04...	0	230	450	3.6	.7	13	869	1.18	54.0	.02	.10

06274220 NOWOOD RIVER AT MANDERSON, WY

LOCATION.--Lat 44°16'34", long 107°57'35", in NE¼SW¼ sec.30, T.50 N., R.92 W., Big Horn County, Hydrologic Unit 10080008, at bridge on State Secondary Highway 0201, and 0.5 mi (0.8 km) upstream from mouth near corporate limits of Manderson.

DRAINAGE AREA.--2,000 mi^2 (5,180 km^2), approximately.

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV 01...	1310	272	7.5	440	270	120	35	35	.7	2.3	210
DEC 06...	1305	200	.0	400	220	110	34	24	.5	2.1	220
JAN 08...	1430	150	--	420	230	110	34	27	.6	2.1	230
FEB 09...	1430	200	.0	460	260	120	37	29	.6	2.1	240
MAR 11...	1345	250	.0	320	200	90	22	47	1.2	3.5	150
APR 15...	1620	274	5.5	360	200	95	31	33	.8	2.3	200
MAY 01...	1330	230	9.0	320	160	84	27	27	.7	2.3	180
JUN 11...	1430	1780	15.0	84	31	24	6.2	6.4	.3	1.2	64
JUL 09...	1510	931	23.0	150	72	40	12	12	.4	1.9	95
AUG 06...	1250	401	22.0	310	180	87	22	29	.7	2.3	160
SEP 04...	1225	47	20.0	580	400	140	57	110	2.0	4.2	220

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 01...	0	172	340	3.5	.5	9.0	651	.89	478	.02	.06
DEC 06...	0	180	280	1.8	.5	11	573	.78	309	.36	.02
JAN 08...	0	189	280	2.4	.4	11	584	.79	237	.45	.01
FEB 09...	0	197	310	4.5	.5	12	637	.87	344	.41	.07
MAR 11...	0	123	290	6.3	.5	9.4	540	.73	365	.34	.04
APR 15...	0	164	260	1.8	.4	9.6	533	.72	394	.09	.03
MAY 01...	6	158	220	3.6	.3	11	467	.64	290	.23	.03
JUN 11...	0	52	42	.0	.1	5.4	117	.16	562	.09	.11
JUL 09...	0	78	100	1.9	.2	6.3	220	.30	553	.02	.03
AUG 06...	0	131	240	1.9	.3	10	469	.64	508	.32	.22
SEP 04...	0	180	610	8.0	.7	6.5	1050	1.43	133	.02	.01

06274810 WOOD RIVER AT KIRWIN, WY

LOCATION.--Lat 43°52'33", long 109°17'52", Park County, Hydrologic Unit 10080009, Shoshone National Forest, on right bank at bridge, 0.1 mi (0.2 km) northwest of Kirwin, 0.2 mi (0.3 km) downstream from Cascade Creek, and 28 mi (45 km) southwest of Meeteetse.

DRAINAGE AREA.--11.4 mi^2 (29.5 km^2).

PERIOD OF RECORD.--October 1970 to September 1975 (gage heights and discharge measurements only), October 1975 to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 9,190 ft (2,801 m), from topographic map. Prior to Oct. 10, 1975, nonrecording gage at site 10 ft (3 m) upstream at same datum.

REMARKS.--Records fair except those for November to May, which are poor. No diversion above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 131 ft^3/s (3.71 m^3/s) July 1, gage height, 4.30 ft (1.311 m); minimum daily, 0.70 ft^3/s (0.020 m^3/s) Mar. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	2.5	1.8	1.0	1.1	.80	.83	1.1	51	108	61	12
2	4.0	2.5	1.9	.95	1.1	.70	.83	1.3	63	92	67	12
3	4.0	2.6	1.9	.95	1.0	.75	.75	1.6	74	83	43	11
4	4.0	2.6	1.8	1.0	.90	.75	.80	1.5	77	91	38	11
5	4.0	2.6	1.7	1.0	.85	.80	.85	1.6	83	94	35	10
6	4.0	2.6	1.8	.95	.80	1.0	.80	1.8	98	95	34	10
7	4.2	2.6	1.8	.95	.85	1.0	.75	1.9	104	94	31	9.6
8	4.6	2.4	1.8	.95	.90	1.0	.75	2.6	100	96	30	8.7
9	4.6	2.3	1.8	1.0	1.0	1.0	.80	6.0	99	98	27	7.9
10	3.2	2.1	1.7	1.0	1.0	1.0	.80	10	97	97	26	7.9
11	3.0	2.2	1.6	1.1	.95	1.0	.90	12	83	87	24	7.6
12	3.0	2.2	1.5	1.0	1.0	.95	1.0	11	59	90	23	7.6
13	3.4	2.2	1.5	.95	1.0	.95	.95	14	46	77	23	7.6
14	3.0	2.2	1.4	1.0	.95	.95	.90	25	39	68	23	6.8
15	3.0	2.2	1.5	1.1	.95	.95	.90	25	35	65	23	6.8
16	3.0	2.2	1.3	1.1	.95	.95	.85	17	33	64	23	6.5
17	3.0	2.2	1.1	1.2	.95	.95	.85	21	31	57	22	6.5
18	3.0	2.2	1.2	1.1	.90	.95	.90	29	29	64	22	6.8
19	2.9	2.1	1.2	1.0	.90	.95	.90	29	35	55	21	6.8
20	2.9	1.9	1.2	1.0	.85	.89	1.0	31	55	51	20	7.2
21	2.9	2.0	1.2	1.1	.80	.89	1.0	32	83	54	18	6.8
22	2.7	2.0	1.1	1.1	.90	.89	1.0	35	86	50	18	7.2
23	2.5	2.0	1.2	1.1	1.0	.89	.95	25	73	47	18	7.9
24	2.3	2.0	1.4	1.0	1.0	.84	1.1	24	59	47	17	7.2
25	2.4	1.9	1.4	.90	1.0	.84	1.1	26	52	50	16	6.8
26	2.5	1.9	1.4	.95	1.0	.84	1.0	29	45	47	15	6.8
27	2.5	1.8	1.3	1.0	.95	.79	1.0	38	47	44	14	6.2
28	2.5	1.7	1.2	1.1	.95	.79	1.0	48	59	41	14	5.8
29	2.5	1.6	1.3	1.1	.90	.79	.90	50	74	36	14	5.8
30	2.5	1.7	1.2	1.0	---	.79	1.0	51	91	34	13	5.5
31	2.5	---	1.1	1.1	---	.80	---	53	---	32	13	---
TOTAL	98.7	65.0	45.3	31.75	27.40	27.44	27.16	654.4	1960	2108	786	236.3
MEAN	3.18	2.17	1.46	1.02	.94	.89	.91	21.1	65.3	68.0	25.4	7.88
MAX	4.6	2.6	1.9	1.2	1.1	1.0	1.1	53	104	108	67	12
MIN	2.3	1.6	1.1	.90	.80	.70	.75	1.1	29	32	13	5.5
AC-FT	196	129	90	63	54	54	54	1300	3890	4180	1560	469

WTR YR 1976 TOTAL 6067.45 MEAN 16.6 MAX 108 MIN .70 AC-FT 12030

06275000 WOOD RIVER AT SUNSHINE, WY

LOCATION.--Lat 44°02'15", long 108°58'24", in NW¼SW¼ sec.15, T.47 N., R.101 W., Park County, Hydrologic Unit 10080009, on right bank at bridge on county road, 1.0 mi (1.6 km) downstream from Ernest May Ranch, 5.2 mi (8.4 km) downstream from Dick Creek, and 10 mi (16 km) southwest of Meeteetse.

DRAINAGE AREA.--194 mi^2 (502 km^2), approximately.

PERIOD OF RECORD.--August 1945 to current year.

REVISED RECORDS.--WSP 1309: 1947(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,450 ft (1,966 m), from topographic map. Prior to Sept. 18, 1952, and Oct. 28, 1953, to June 15, 1963, water-stage recorder at site 2.0 mi (3.2 km) upstream at different datum. Sept. 18, 1952, to Oct. 27, 1953, nonrecording gage at site 2.0 mi (3.2 km) upstream at different datum. June 16, 1963, to Aug. 13, 1967, water-stage recorder at site 1.4 mi (2.3 km) upstream at different datum. Aug. 14 to Oct. 5, 1967, nonrecording gage at present site and datum.

REMARKS.--Records fair except those for November to March, which are poor. Water diverted above station to Lower Sunshine Reservoir since 1972. Diversions above station for irrigation of about 3,200 acres (13.0 km^2), of which about 1,000 acres (4.05 km^2) lies below station.

AVERAGE DISCHARGE.--27 years (water years 1946-72), prior to Lower Sunshine diversion, 117 ft^3/s (3.313 m^3/s), 84,770 acre-ft/yr (105 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,080 ft^3/s (144 m^3/s) June 15, 1963, gage height, 7.00 ft (2.134 m), from floodmark, site and datum then in use, from contracted-opening measurement of peak flow; minimum daily, 2.8 ft^3/s (0.079 m^3/s) Oct. 22, 25, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 975 ft^3/s (27.6 m^3/s) Aug. 2, gage height, 7.09 ft (2.161 m); minimum daily, 8.0 ft^3/s (0.23 m^3/s) Mar. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	14	25	25	19	12	30	19	222	447	392	59
2	61	14	35	20	19	11	34	49	279	390	496	52
3	63	14	39	22	19	9.5	33	58	328	303	232	54
4	55	16	36	25	18	8.0	45	46	321	328	162	54
5	55	14	32	29	16	8.5	59	31	324	340	157	54
6	54	14	30	27	13	12	41	47	383	360	168	54
7	54	14	28	25	13	13	22	27	516	366	175	55
8	64	13	26	26	16	14	19	113	627	353	164	51
9	59	13	25	27	18	15	24	204	592	334	155	49
10	58	12	24	26	17	16	16	219	572	331	147	47
11	54	11	23	25	15	15	19	194	520	291	138	47
12	47	12	24	26	15	14	25	145	353	257	132	50
13	52	14	23	26	15	14	15	197	273	209	126	51
14	43	15	21	25	15	14	9.7	235	248	206	121	49
15	40	16	20	25	15	14	8.6	206	216	206	113	47
16	29	18	21	27	14	14	11	126	204	202	113	47
17	19	18	20	29	14	16	12	145	212	187	111	47
18	19	18	19	27	14	18	10	194	216	182	111	51
19	18	17	21	24	14	18	9.2	202	216	180	109	70
20	17	16	23	21	13	16	8.6	202	262	164	106	66
21	17	14	25	22	13	15	8.6	189	443	157	104	68
22	23	16	27	23	13	15	9.2	222	476	151	100	78
23	21	20	26	24	13	16	9.7	206	407	147	97	99
24	19	25	28	22	13	16	20	202	315	142	95	84
25	20	23	30	20	14	16	60	204	262	142	95	84
26	20	25	31	18	14	17	61	273	212	153	92	85
27	19	24	31	19	14	16	52	282	202	145	89	85
28	18	23	25	20	14	14	29	268	224	134	84	82
29	17	22	27	20	13	15	9.2	276	257	130	84	81
30	16	21	29	20	---	17	11	279	312	124	74	79
31	15	---	27	19	---	21	---	271	---	124	63	---
TOTAL	1127	506	821	734	433	450.0	720.8	5331	9994	7185	4425	1879
MEAN	36.4	16.9	26.5	23.7	14.9	14.5	24.0	172	333	232	143	62.6
MAX	64	25	39	29	19	21	61	282	627	447	496	99
MIN	15	11	19	18	13	8.0	8.6	19	202	124	63	47
AC-FT	2240	1000	1630	1460	859	893	1430	10570	19820	14250	8780	3730

CAL YR 1975 TOTAL 45001.6 MEAN 123 MAX 1200 MIN 9.1 AC-FT 89260
WTR YR 1976 TOTAL 33605.8 MEAN 91.8 MAX 627 MIN 8.0 AC-FT 66660

06276500 GREYBULL RIVER AT MEETEETSE, WY

LOCATION.--Lat 44°09'20", long 108°52'35", in sec.4, T.48 N., R.100 W., Park County, Hydrologic Unit 10080009, on right bank at Meeteetse, 0.3 mi (0.5 km) upstream from bridge on State Highway 120, and 3.0 mi (4.8 km) upstream from Meeteetse Creek.

DRAINAGE AREA.--681 mi^2 (1,764 km^2).

PERIOD OF RECORD.--June to December 1897, April to October 1903 (gage heights and discharge measurements only), July 1920 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1923(M), 1924, 1925(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,739.42 ft (1,749.375 m) above mean sea level. See WSP 1916 for history of changes prior to Apr. 28, 1938. Apr. 28, 1938, to May 24, 1961, at site on left bank at datum 2.00 ft (0.610 m) higher. May 25, 1961, to May 9, 1967, at site 100 ft (30 m) downstream at present datum.

REMARKS.--Records poor. Some regulation by Sunshine Reservoir beginning May 1940, capacity, 52,990 acre-ft (65.3 hm^3), and Lower Sunshine Reservoir beginning December 1972, capacity, 58,900 acre-ft (72.6 hm^3). Diversions for irrigation of about 10,600 acres (42.9 km^2) above station. Several diversions above station for irrigation below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--51 years (water years 1921-71), 347 ft^3/s (9.827 m^3/s), 251,400 acre-ft/yr (310 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,600 ft^3/s (385 m^3/s) June 15, 1963, gage height, 9.20 ft (2.804 m), from floodmark, from rating curve extended above 4,600 ft^3/s (130 m^3/s) on basis of velocity-area study; minimum daily, 16 ft^3/s (0.45 m^3/s) Mar. 4, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,860 ft^3/s (52.7 m^3/s) Aug. 2, gage height, 4.38 ft (1.335 m); minimum daily during period of operation, 44 ft^3/s (1.25 m^3/s) Apr. 20, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							74	71	755	1320	1200	490
2							90	92	811	1300	1240	500
3							85	143	839	1090	908	525
4							120	224	811	1160	748	546
5							150	188	797	1200	624	552
6							110	246	846	1200	612	558
7							70	200	1070	1200	552	588
8							60	321	1240	1160	505	582
9							65	570	1170	1160	552	546
10							50	558	1120	1160	660	498
11							55	624	1020	1130	660	470
12							70	445	1070	1060	636	445
13							60	500	956	1000	600	440
14							52	653	876	916	588	410
15							49	810	762	839	576	372
16							56	465	708	860	558	354
17							59	582	660	892	558	354
18							55	783	642	908	588	410
19							48	804	630	948	594	405
20							44	688	797	980	606	280
21							44	702	1200	988	612	256
22							45	790	1340	972	582	260
23							46	727	1220	956	570	325
24							47	708	1010	972	564	280
25							111	783	916	980	570	235
26							147	804	769	988	570	221
27							131	876	702	988	570	218
28							92	769	755	956	570	197
29							57	868	940	924	558	158
30							62	884	1110	860	525	155
31							---	853	---	853	500	---
TOTAL							2204	17731	27542	31920	19756	11622
MEAN							73.5	572	918	1030	637	387
MAX							150	884	1340	1320	1240	588
MIN							44	71	630	839	500	155
AC-FT							4370	35170	54630	63310	39190	23050

06277500 GREYBULL RIVER NEAR BASIN, WY

LOCATION.--Lat 44°24'24", long 108°11'10", in NE¼NW¼SW¼ sec.8, T.51 N., R.94 W., Big Horn County, Hydrologic Unit 10080009, at former gaging station, at bridge on State Secondary Highway 0200, 3.0 mi (4.8 km) upstream from Dorsey Creek, and 8.0 mi (12.9 km) west of Basin.

DRAINAGE AREA.--1,115 mi^2 (2,888 km^2).

PERIOD OF RECORD.--Water years 1951-53, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSURPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT 06...	0930	44	10.5	300	29	77	27	120	3.0	3.5	330
NOV 04...	1115	118	6.0	320	66	74	34	97	2.3	3.0	310
DEC 03...	1540	202	.0	300	54	73	30	82	2.0	3.0	300
JAN 05...	1145	58	.0	400	72	100	37	130	2.8	2.6	400
FEB 12...	1130	81	.0	350	79	85	35	92	2.1	3.3	330
MAR 12...	0950	88	.0	270	49	66	26	79	2.1	4.7	270
APR 03...	1435	157	11.0	280	60	67	28	78	2.0	2.8	250
MAY 04...	1840	42	13.5	310	79	75	29	110	2.7	3.7	270
JUN 11...	1100	493	6.5	100	0	26	9.2	32	1.4	1.4	130
JUL 07...	1700	562	22.0	110	12	27	9.5	33	1.4	2.3	120
AUG 13...	1325	70	22.0	250	10	63	23	110	3.0	3.5	280
SEP 04...	1630	12	24.0	250	5	60	24	110	3.0	5.1	280

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 06...	0	271	280	8.3	.6	16	697	.95	82.8	.32	.05
NOV 04...	0	254	280	8.5	.5	12	660	.90	210	.20	.01
DEC 03...	0	246	240	6.0	.5	15	598	.81	326	.36	.16
JAN 05...	0	328	340	8.7	.5	19	840	1.14	132	.70	.03
FEB 12...	0	271	290	5.2	.5	16	690	.94	151	.67	.06
MAR 12...	0	221	230	5.2	.5	13	554	.75	132	.41	.14
APR 03...	9	220	230	6.3	.3	13	554	.75	235	.25	.12
MAY 04...	6	231	310	9.0	.6	16	696	.95	78.9	.54	.63
JUN 11...	0	107	72	1.9	.2	15	220	.30	293	.18	.40
JUL 07...	0	98	74	1.9	.3	16	223	.30	330	.23	.24
AUG 13...	6	240	240	8.2	.8	18	619	.84	117	1.0	.10
SEP 04...	9	245	230	7.3	.9	18	603	.82	19.5	.18	.15

DATE	TIME	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	POLYCHLORINATED NAPHTHALENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)	CHLORUANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)
SEP 04...	1630	.0	0	.00	.00	.0	.0	3	.00	.0	.00	.1

DATE	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)
SEP 04...	.00	.0	.00	.00	.4	.00	.0	.00	.00	.0	.00	.0

DATE	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL METHYL TRITHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL TOXAPHENE (UG/L)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
SEP 04...	.00	.0	.00	.00	.00	.00	0	0	.00	.09	.00	.00

06278300 SHELL CREEK ABOVE SHELL RESERVOIR, WY

LOCATION.--Lat 44°30'29", long 107°24'11", in sec.1, T.52 N., R.88 W., Big Horn County, Hydrologic Unit 10080010, Bighorn National Forest, on right bank 0.2 mi (0.3 km) upstream from Shell Reservoir, 1.1 mi (1.8 km) downstream from Buckley Creek, 6.0 mi (9.7 km) southeast of Shell Creek ranger station, and 19 mi (31 km) east of Shell.

DRAINAGE AREA.--23.1 mi² (59.8 km²).

PERIOD OF RECORD.--October 1956 to current year. Prior to October 1969, published as Shell Creek above Shell Creek Reservoir.

REVISED RECORDS.--WSP 1629: 1958. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 9,050 ft (2,758 m), from topographic map.

REMARKS.--Records good except those for October to May, which are poor. No diversion above station.

AVERAGE DISCHARGE.--20 years, 36.8 ft³/s (1.042 m³/s), 26,080 acre-ft/yr (32.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,870 ft³/s (53.0 m³/s) June 15, 1963, gage height, 7.84 ft (2.390 m), from floodmarks, from rating curve extended above 550 ft³/s (15.6 m³/s) on basis of velocity-area study; minimum daily, 0.60 ft³/s (0.017 m³/s) Mar. 7, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 29	0030	410	11.6	4.67	1.423
June 6	2230	*803	22.7	5.96	1.817
June 21	2230	496	14.0	5.02	1.530

Minimum daily discharge, 0.90 ft³/s (0.025 m³/s) Mar. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.8	3.0	1.6	1.6	1.1	1.6	1.8	291	237	18	7.1
2	3.6	3.8	2.8	1.8	1.6	1.1	1.6	1.9	410	163	29	6.7
3	3.4	3.7	2.8	1.9	1.6	1.0	1.6	2.0	485	118	31	6.4
4	3.4	3.7	2.8	2.0	1.5	1.0	1.6	2.4	498	109	25	6.3
5	3.2	3.6	2.8	2.1	1.4	.95	1.6	3.0	498	105	22	6.1
6	3.2	3.5	2.7	1.9	1.5	.90	1.6	2.8	540	103	20	6.0
7	3.2	3.5	2.7	1.8	1.6	1.0	1.6	2.8	504	99	18	12
8	3.2	3.4	2.7	1.8	1.5	1.1	1.6	3.5	403	88	16	9.2
9	3.2	3.0	2.7	1.8	1.5	1.2	1.6	4.5	345	80	14	8.2
10	3.4	2.6	2.7	1.8	1.5	1.3	1.6	5.2	290	73	14	7.6
11	3.2	2.8	2.6	1.8	1.5	1.3	1.6	15	245	68	14	7.3
12	3.2	2.6	2.5	1.8	1.5	1.2	1.7	12	187	65	13	7.6
13	3.5	2.8	2.4	1.7	1.5	1.2	1.8	11	131	59	12	9.0
14	3.9	3.0	2.1	1.7	1.4	1.3	1.9	13	98	53	11	8.1
15	3.6	3.2	2.2	1.7	1.4	1.3	1.9	18	106	47	11	7.8
16	3.9	3.2	2.2	1.8	1.3	1.3	1.9	16	110	43	10	7.5
17	3.9	3.0	2.1	1.8	1.3	1.4	1.8	15	96	39	9.6	7.1
18	4.1	3.0	2.2	1.8	1.3	1.5	1.7	17	88	36	9.0	7.0
19	3.9	2.8	2.3	1.7	1.2	1.5	1.7	50	95	34	11	11
20	3.9	2.2	2.3	1.6	1.1	1.4	1.7	140	149	33	9.3	10
21	3.9	2.2	2.2	1.6	1.2	1.4	1.7	204	336	31	8.6	9.6
22	4.1	2.5	2.2	1.6	1.3	1.4	1.7	196	313	28	8.1	9.3
23	3.5	2.5	2.2	1.6	1.3	1.5	1.6	183	246	26	7.9	13
24	3.2	2.4	2.1	1.5	1.3	1.5	1.6	170	141	24	7.8	13
25	3.0	2.4	2.1	1.4	1.3	1.5	1.7	232	111	23	7.6	12
26	3.6	2.3	2.1	1.5	1.3	1.5	1.8	201	104	22	7.7	12
27	3.6	2.4	2.1	1.6	1.3	1.6	1.7	205	91	21	9.1	12
28	3.4	2.5	2.1	1.7	1.2	1.6	1.7	319	100	20	8.3	11
29	3.8	2.4	2.1	1.7	1.2	1.5	1.7	352	124	18	7.6	11
30	3.9	2.4	2.1	1.6	---	1.6	1.7	235	150	17	7.4	10
31	3.9	---	2.0	1.6	---	1.6	---	193	---	17	7.5	---
TOTAL	110.4	87.2	73.9	53.3	40.2	40.75	50.6	2826.9	7293	1899	404.5	270.9
MEAN	3.56	2.91	2.38	1.72	1.39	1.31	1.69	91.2	243	61.3	13.0	9.03
MAX	4.1	3.8	3.0	2.1	1.6	1.6	1.9	352	540	237	31	13
MIN	3.0	2.2	2.0	1.4	1.1	.90	1.6	1.8	88	17	7.4	6.0
AC-FT	219	173	147	106	80	81	100	5610	14470	3770	802	537

CAL YR 1975 TOTAL 14423.30 MEAN 39.5 MAX 620 MIN 1.1 AC-FT 28610
WTR YR 1976 TOTAL 13150.65 MEAN 35.9 MAX 540 MIN .90 AC-FT 26080

06278500 SHELL CREEK NEAR SHELL, WY

LOCATION.--Lat 44°33'54", long 107°42'44", in SE¼SW¼ sec.17, T.53 N., R.90 W., Big Horn County, Hydrologic Unit 10080010, on right bank 0.9 mi (1.4 km) upstream from White Creek and 5.0 mi (8.0 km) northeast of Shell.

DRAINAGE AREA.--145 mi² (376 km²).

PERIOD OF RECORD.--October 1940 to current year (no winter records since 1971). Prior to December 1940, monthly discharge only, published in WSP 1309.

REVISED RECORDS.--WSP 1239: 1941, 1945(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,370.05 ft (1,331.991 m) above mean sea level.

REMARKS.--Records good. Some regulation by two small reservoirs, capacity, 3,650 acre-ft (4.50 hm³). Diversions above station for irrigation of about 80 acres (32 hm²) below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--31 years (water years (1941-71), 119 ft³/s (3.370 m³/s), 86,220 acre-ft/yr (106 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,020 ft³/s (85.5 m³/s) June 24, 1945, gage height, 7.49 ft (2.283 m), from rating curve extended above 1,600 ft³/s (45.3 m³/s); minimum daily, 18 ft³/s (0.51 m³/s) Mar. 5, 7, 1950, Jan. 30, 31, 1951.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 750 ft³/s (21.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 29	0530	960	27.2	4.33	1.320
June 6	0130	*1,800	51.0	5.38	1.640

Minimum daily discharge during period of operation, 40 ft³/s (1.13 m³/s) Apr. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							44	42	715	415	136	96
2							44	47	918	405	171	93
3							42	58	1010	328	177	92
4							44	69	1140	292	149	89
5							46	69	1120	267	138	87
6							50	59	1580	262	134	86
7							52	62	1510	260	130	103
8							48	80	1350	248	130	93
9							51	99	807	223	128	89
10							47	118	730	199	128	86
11							47	139	626	197	127	87
12							49	120	586	191	126	89
13							52	116	496	183	122	93
14							53	147	454	171	121	86
15							49	157	426	159	118	84
16							52	137	472	151	118	84
17							46	155	433	142	115	82
18							46	228	402	139	114	81
19							43	292	391	134	120	87
20							42	401	426	134	114	85
21							42	419	578	128	110	81
22							41	408	657	121	109	80
23							41	391	644	116	109	84
24							41	419	475	114	109	82
25							44	530	408	110	106	82
26							48	508	370	136	105	84
27							45	617	340	140	108	82
28							43	758	316	138	105	80
29							42	942	331	134	100	79
30							40	752	346	134	100	79
31							---	653	---	134	99	---
TOTAL							1374	8992	20057	5905	3776	2585
MEAN							45.8	290	669	190	122	86.2
MAX							53	942	1580	415	177	103
MIN							40	42	316	110	99	79
AC-FT							2730	17840	39780	11710	7490	5130

06279090 SHELL CREEK NEAR GREYBULL, WY

LOCATION.--Lat 44°30'34", long 108°02'52", in NW¼SW¼ sec.4, T.52 N., R.93 W., Big Horn County, Hydrologic Unit 10080010, at bridge on county road, 0.4 mi (0.6 km) upstream from mouth, and 1.5 mi (2.4 km) north of post office in Greybull.

DRAINAGE AREA.--560 mi² (1,450 km²), approximately.

PERIOD OF RECORD.--Water years 1951, 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA.MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT								
05...	1000	43	12.0	2	9.8	8500	703	480
NOV								
09...	1100	111	3.0	2	12.2	88	450	260
DEC								
07...	1030	119	1.5	5	11.2	38	420	220
JAN								
11...	1100	110	.0	2	11.8	34	390	180
FEB								
08...	1030	85	.0	10	9.6	28	440	210
MAR								
09...	1030	E100	.5	210	10.7	48	360	180
APR								
11...	1030	72	9.0	7	12.4	54	380	190
MAY								
08...	1400	25	17.0	10	10.4	818	450	260
JUN								
13...	1500	631	12.0	25	8.7	120	180	82
JUL								
11...	1515	130	25.0	2	9.5	92	350	190
AUG								
07...	1500	91	23.0	7	9.2	110	470	270
SEP								
04...	1510	43	21.0	3	9.3	110	630	400

B Results based on colony count outside the acceptable range (non-ideal colony count).
E Estimate.

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT									
05...	190	55	140	2.3	3.7	270	0	221	780
NOV									
09...	120	36	59	1.2	1.6	230	0	189	360
DEC									
07...	110	36	66	1.4	1.9	240	0	197	350
JAN									
11...	100	33	53	1.2	2.3	251	0	206	310
FEB									
08...	110	39	53	1.1	2.3	280	0	230	330
MAR									
09...	94	30	78	1.8	3.5	220	0	180	330
APR									
11...	94	34	59	1.3	1.9	230	0	189	300
MAY									
08...	110	41	100	2.1	3.0	230	0	189	460
JUN									
13...	49	14	22	.7	1.4	120	0	98	110
JUL									
11...	94	29	50	1.2	1.4	190	0	156	280
AUG									
07...	130	37	75	1.5	2.8	240	0	197	420
SEP									
04...	170	51	130	2.2	4.4	270	3	226	690

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT								
05...	5.4	.7	10	1320	1.80	153	.27	.01
NOV								
09...	2.1	.5	9.0	701	.95	210	.36	.01
DEC								
07...	5.3	.5	10	703	.96	226	.54	.03
JAN								
11...	1.7	.4	10	631	.86	187	.47	.02
FEB								
08...	2.8	.5	11	685	.93	157	.61	.04
MAR								
09...	4.2	.5	9.5	661	.90	178	.56	.27
APR								
11...	4.3	.4	7.5	613	.83	119	.25	.04
MAY								
08...	4.7	.6	4.0	845	1.15	57.0	.05	.01
JUN								
13...	1.9	.3	7.0	268	.36	457	.18	.05
JUL								
11...	3.7	.5	9.1	566	.77	199	.07	.03
AUG								
07...	3.7	.6	11	795	1.08	195	.63	.06
SEP								
04...	6.6	.8	9.3	1200	1.63	139	.00	.01

06279500 BIGHORN RIVER AT KANE, WY

LOCATION.--Lat 44°45'31", long 108°10'51", in NW¼NE¼SW¼ sec.9, T.55 N., R.94 W., Big Horn County, Hydrologic Unit 10080010, on right bank 180 ft (55 m) upstream from Bighorn Canyon National Recreation Area boundary, 0.5 mi (0.8 km) upstream from normal high-water line of Bighorn Lake at evelvation 3,660 ft (1,116 m), 1.3 mi (2.1 km) upstream from Five Springs Creek, and 5.9 mi (9.5 km) south of Kane.

DRAINAGE AREA.--15,765 mi^2 (40,831 km^2). Area at sites used prior to May 17, 1956, 15,846 mi^2 (41,041 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1928 to current year.

REVISED RECORDS.--WSP 1309: 1929(M). WSP 1509: 1929. WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,660 ft (1,116 m), from topographic map. Aug. 29, 1928, to Apr. 25, 1932, nonrecording gage, and Apr. 25, 1932, to May 16, 1956, water-stage recorder, at site 12.5 mi (20.1 km) downstream at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Some regulation by Boysen Reservoir since October 1951. (See page 286.) Diversions for irrigation of about 376,000 acres (1,522 km^2) above station.

AVERAGE DISCHARGE.--48 years, 2,302 ft^3/s (65.19 m^3/s), 1,668,000 acre-ft/yr (2,057 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,200 ft^3/s (714 m^3/s) June 16, 1935, gage height, 11.10 ft (3.383 m), site and datum then in use; minimum daily, 179 ft^3/s (5.07 m^3/s) July 22, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 14.8 ft (4.51 m) Sept. 30, 1923, site and datum in use April 1932 to May 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,830 ft^3/s (222 m^3/s) June 22, gage height, about 5.2 ft (1.58 m); maximum gage height, 8.84 ft (2.694 m) Nov. 29 (backwater from ice); minimum daily discharge, 980 ft^3/s (27.8 m^3/s) Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1790	2180	1500	2500	2400	2000	1840	2280	3790	2560	1430	1030
2	1800	2160	1600	2300	2400	1900	1870	2200	3990	3190	2610	1000
3	1780	2130	1800	2200	2400	1800	2230	2180	4500	2980	4970	990
4	1780	2060	1900	2300	2400	1700	2250	2120	4930	2440	4140	980
5	1800	2120	2000	2500	2300	1800	2250	1400	5050	2470	3050	1049
6	1810	2090	1900	2600	2200	1900	2280	1610	5250	2400	2620	1100
7	1830	2130	1800	2500	2100	2100	2350	2130	5510	2360	2190	1180
8	1840	2120	1800	2400	2100	2200	2220	2130	5670	2200	1940	1250
9	1970	2060	1800	2500	2200	2300	2500	1910	5370	1950	1750	1320
10	1920	2020	1800	2500	2400	2600	2700	2010	4790	1810	1490	1340
11	1920	2020	1800	2500	2500	3000	2700	2060	4370	1740	1310	1380
12	1910	1870	1700	2500	2500	2800	2610	2150	4140	1670	1200	1400
13	1990	1810	1700	2400	2400	2700	2580	2080	3700	1500	1190	1460
14	2320	1870	2000	2400	2400	2600	2590	1800	3190	1340	1200	1480
15	2440	1940	2400	2500	2400	2600	2610	1800	3620	1170	1220	1550
16	2280	1980	2400	2600	2400	2700	2560	2530	4440	1020	1170	1580
17	2250	1970	2200	2700	2400	3050	2540	2250	4810	1000	1110	1580
18	2130	1970	2000	2600	2400	3680	2440	2120	4250	1070	1090	1570
19	2160	1850	1900	2500	2400	3990	2220	2380	4180	1060	1090	1950
20	2130	1800	2000	2500	2400	3290	2420	2740	4040	1040	1090	3220
21	2120	1780	2000	2500	2300	2690	2360	3480	4420	1120	1090	2200
22	2060	1700	2000	2500	2200	2530	2230	3770	5310	1220	1100	1980
23	2190	1660	2100	2500	2400	2580	2250	3570	6680	1260	1100	1950
24	2160	1810	2100	2500	2500	2620	2180	3590	5530	1100	1030	2060
25	2080	1870	2200	2500	2300	2590	2150	3610	4400	1090	1040	2020
26	2120	1880	2200	2400	2000	2130	2130	4160	3530	1080	1070	2110
27	2130	1800	2300	2300	2000	1990	2350	3710	2690	1120	1100	2010
28	2180	1700	2400	2400	2000	2300	2670	3640	2230	1160	1140	2120
29	2180	1600	2400	2400	2000	2360	2660	4230	2080	1180	1140	2120
30	2130	1500	2500	2400	---	2320	2420	4610	2110	1250	1190	1830
31	2180	---	2500	2400	---	1970	---	4250	---	1250	1130	---
TOTAL	63380	57450	62700	76300	66800	76790	71160	84500	128570	49800	49990	48800
MEAN	2045	1915	2023	2461	2303	2477	2372	2726	4286	1606	1613	1627
MAX	2440	2180	2500	2700	2500	3990	2700	4610	6680	3190	4970	3220
MIN	1780	1500	1500	2200	2000	1700	1840	1400	2080	1000	1030	980
AC-FT	125700	114000	124400	151300	132500	152300	141100	167600	255000	98780	99160	96790

CAL YR 1975 TOTAL 1037510 MEAN 2842 MAX 10900 MIN 950 AC-FT 2058000
WTR YR 1976 TOTAL 836240 MEAN 2285 MAX 6680 MIN 980 AC-FT 1659000

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at Magcobar Corp. bridge 24.5 mi (39.4 km) upstream from discharge station.

PERIOD OF RECORD.--Water years 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1955 to September 1957, December 1960 to September 1976 (discontinued).
WATER TEMPERATURES: July to September 1949, October 1950 to September 1976 (discontinued).

REMARKS.--No appreciable inflow between sampling site and discharge station except during periods of intense local precipitation.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,100 micromhos Jan. 31, 1976; minimum daily, 351 micromhos June 17, 1974.
WATER TEMPERATURES: Maximum, 29.0°C July 14, 30, 1953, July 12, 1954; minimum, 0.0°C on many days during winter periods.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,100 micromhos Jan. 31; minimum daily, 425 micromhos June 6, 8.
WATER TEMPERATURES: Maximum observed, 24.0°C July 12, minimum, 0.0°C on many days during November to March.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 05...	1130	1830	920	14.0	7	9.2	110	330	160
NOV 09...	1200	2060	900	5.0	4	11.8	830	330	160
DEC 07...	1[illegible]00	A1800	1050	1.0	6	11.6	33	360	180
JAN 11...	1230	A2500	880	1.0	1	11.1	72	290	120
FEB 08...	1215	A2100	560	.0	8	10.8	35	310	120
MAR 09...	1200	A2300	890	2.0	70	10.8	110	320	140
APR 11...	1115	2720	930	10.5	80	11.0	56	300	130
MAY 08...	1500	2090	940	16.5	90	9.3	130	290	130
JUN 14...	0915	3030	520	10.0	45	9.1	170	190	75
JUL 12...	1030	1660	670	24.0	4	7.7	110	240	110
AUG 08...	0915	1950	950	20.0	100	7.4	150	300	130
SEP 04...	1550	960	1100	22.0	6	8.9	56	330	140

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 05...	78	32	79	1.9	3.3	210	0	172	300
NOV 09...	86	28	82	2.0	3.0	210	0	172	310
DEC 07...	93	30	84	1.9	3.7	220	0	180	320
JAN 11...	76	25	75	1.9	3.7	210	0	172	270
FEB 08...	79	28	78	1.9	4.7	230	0	189	290
MAR 09...	81	28	85	2.1	3.5	210	3	177	310
APR 11...	78	26	79	2.0	3.7	190	6	166	290
MAY 08...	75	25	82	2.1	3.5	200	0	164	290
JUN 14...	51	15	41	1.3	2.1	140	0	115	150
JUL 12...	63	21	59	1.6	2.3	160	0	131	220
AUG 08...	78	26	85	2.1	3.3	210	0	172	290
SEP 04...	85	28	100	2.4	4.2	230	0	189	340

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT								
05...	13	.6	9.4	622	.85	3070	.16	.05
NOV								
09...	16	.6	9.3	638	.87	3550	.09	.03
DEC								
07...	16	.6	9.0	661	.90	3210	.20	.02
JAN								
11...	13	.5	11	579	.79	3910	.20	.01
FEB								
08...	12	.6	9.7	610	.83	3460	.18	.07
MAR								
09...	16	.5	9.4	635	.86	3940	.14	.09
APR								
11...	15	.4	9.7	604	.82	4440	.09	.08
MAY								
08...	15	.6	10	601	.82	3390	.45	.16
JUN								
14...	9.3	.4	9.4	350	.48	2860	.02	.13
JUL								
12...	9.3	.5	8.5	467	.64	2090	.27	.03
AUG								
08...	13	.6	14	620	.84	3260	.77	.15
SEP								
04...	16	.8	7.7	708	.96	1840	2.2	.04

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TOTAL PCB (UG/L)	PCB IN BOTTOM MA-TERIAL (UG/KG)	POLY-CHLO-RINATED NAPH-THA-LENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDD (UG/L)
SEP										
23...	0915	1850	.0	0	.00	.00	.0	.0	0	.00

DATE	DDD IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DI-AZINON (UG/L)	TOTAL DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)
SEP									
23...	.0	.00	.1	.00	.0	.00	.00	.3	.00

DATE	ENDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL MALA-THION (UG/L)
SEP									
23...	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	TOTAL METHYL PARA-THION (UG/L)	TOTAL METHYL TRI-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
SEP									
23...	.00	.00	.00	0	0	.00	.02	.01	.00

06279500 BIGHORN RIVER AT KANE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
OCT 02...	1800	14.0	1780	146	702	--	--	--	--	--	--
MAR 09...	1700	6.0	A2300	564	3500	34	54	84	91	100	--
JUN 07...	1730	17.5	5730	1670	25800	19	30	62	79	94	100
AUG 11...	1300	21.5	1270	242	830	--	--	--	--	--	--

A Daily mean discharge.

DATE	TIME	NUMBER OF SAM-PLING POINTS	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
MAR 09...	1700	4	6.0	A2300	1	1	2	22
JUN 07...	1730	4	17.5	5730	0	1	8	21
AUG 11...	1300	5	21.5	1270	0	1	6	13

A Daily mean discharge.

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAR 09...	55	59	61	65	71	100	--
JUN 07...	29	32	36	45	62	100	--
AUG 11...	16	17	21	32	54	89	100

06279500 BIGHORN RIVER AT KANE, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	936	964	1080	1010	835	865	1100	1050	552	583	964	1020
2	885	961	1060	997	840	931	1100	1010	554	824	838	1030
3	932	971	980	919	850	936	1080	979	476	504	830	1030
4	934	952	941	889	852	952	1030	979	444	596	984	1030
5	921	963	941	881	852	941	1090	1010	428	589	1050	1040
6	910	932	954	857	890	957	1030	1020	425	614	882	1020
7	910	951	956	841	910	827	1000	910	430	579	875	1010
8	940	951	956	859	940	951	1000	883	425	677	917	1010
9	890	951	971	864	907	929	968	889	426	604	946	999
10	936	929	971	854	1030	924	898	878	458	733	966	1010
11	945	959	990	853	1180	837	899	819	478	728	976	999
12	950	943	982	847	824	862	890	798	520	731	980	968
13	952	939	981	848	829	904	901	800	557	733	1010	978
14	930	985	964	851	840	968	907	819	542	748	999	998
15	984	975	767	850	862	949	902	815	655	780	1010	988
16	946	996	617	882	845	933	892	759	839	850	1010	986
17	986	1010	720	856	840	906	885	808	713	890	1010	975
18	973	1010	915	837	851	903	902	863	691	920	1010	963
19	944	998	951	872	857	935	936	813	676	918	1020	1030
20	941	971	909	899	862	903	947	702	719	943	1010	1010
21	933	993	931	976	862	961	918	582	646	940	1020	975
22	933	1020	917	1020	864	969	923	609	489	962	1010	1010
23	878	997	1060	1030	859	988	913	574	479	939	1020	978
24	934	997	996	907	859	1020	901	595	488	1000	1020	957
25	961	983	926	996	859	1040	892	595	572	1000	1040	936
26	961	983	936	1100	870	1150	924	576	604	982	1020	926
27	947	867	887	1350	905	1140	899	570	644	972	1040	987
28	958	964	906	1630	722	1090	964	563	677	972	1030	946
29	969	1030	915	2190	844	1010	964	512	733	970	1040	940
30	956	1080	957	2880	---	1020	988	481	703	990	1020	921
31	977	---	925	4100	---	1040	---	500	---	980	1030	---
MONTH	940	974	934	1150	874	956	955	766	568	815	986	989
YEAR	MAX	4100	MIN	425	MEAN	910						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.0	7.0	0.0	0.0	0.0	0.0	7.0	9.0	13.0	19.0	21.0	18.0
2	12.0	7.0	0.0	0.0	0.0	0.0	7.0	10.0	14.0	19.0	21.0	18.0
3	12.0	7.0	0.0	0.0	0.0	0.0	6.0	12.0	14.0	17.0	19.0	18.0
4	13.0	6.0	0.0	0.0	0.0	0.0	6.0	13.0	14.0	18.0	18.0	18.0
5	12.0	6.0	0.0	0.0	0.0	0.0	8.0	11.0	15.0	19.0	17.0	18.0
6	13.0	5.0	0.0	0.0	0.0	0.0	9.0	12.0	15.0	20.0	19.0	18.0
7	14.0	7.0	0.0	0.0	0.0	0.0	9.0	13.0	15.0	20.0	20.0	16.0
8	10.0	6.0	0.0	0.0	0.0	0.0	9.0	13.0	15.0	20.0	19.0	15.0
9	8.0	3.0	0.0	0.0	0.0	0.0	9.0	14.0	15.0	20.0	20.0	13.0
10	9.0	2.0	0.0	0.0	0.0	3.0	9.0	15.0	16.0	20.0	20.0	13.0
11	10.0	3.0	1.0	0.0	0.0	3.0	10.0	16.0	15.0	20.0	18.0	15.0
12	10.0	0.0	0.0	0.0	0.0	0.0	10.0	11.0	15.0	20.0	19.0	16.0
13	9.0	0.0	0.0	0.0	0.0	0.0	10.0	12.0	14.0	19.0	19.0	16.0
14	8.0	1.0	0.0	0.0	0.0	1.0	9.0	14.0	10.0	20.0	18.0	16.0
15	7.0	2.0	0.0	0.0	0.0	1.0	9.0	14.0	8.0	19.0	19.0	15.0
16	8.0	4.0	0.0	0.0	0.0	2.0	10.0	11.0	13.0	20.0	17.0	16.0
17	8.0	5.0	0.0	0.0	0.0	3.0	7.0	12.0	12.0	21.0	17.0	17.0
18	10.0	4.0	0.0	0.0	0.0	2.0	8.0	15.0	14.0	23.0	20.0	17.0
19	10.0	2.0	0.0	0.0	1.0	4.0	9.0	16.0	15.0	22.0	20.0	14.0
20	10.0	0.0	0.0	0.0	1.0	2.0	8.0	15.0	16.0	22.0	20.0	13.0
21	10.0	0.0	0.0	0.0	1.0	2.0	9.0	15.0	17.0	21.0	20.0	13.0
22	10.0	0.0	0.0	0.0	0.0	3.0	9.0	14.0	17.0	21.0	20.0	15.0
23	6.0	0.0	0.0	0.0	0.0	4.0	9.0	14.0	14.0	22.0	22.0	15.0
24	4.0	0.0	0.0	0.0	0.0	4.0	10.0	12.0	14.0	22.0	20.0	15.0
25	5.0	0.0	0.0	0.0	1.0	6.0	9.0	13.0	15.0	21.0	19.0	15.0
26	4.0	0.0	0.0	0.0	0.0	3.0	9.0	12.0	13.0	20.0	20.0	14.0
27	5.0	0.0	0.0	0.0	0.0	5.0	8.0	13.0	14.0	21.0	15.0	11.0
28	4.0	0.0	0.0	0.0	0.0	4.0	7.0	14.0	15.0	19.0	15.0	11.0
29	4.0	0.0	0.0	0.0	0.0	4.0	7.0	14.0	17.0	20.0	17.0	12.0
30	5.0	0.0	0.0	0.0	---	5.0	8.0	12.0	18.0	20.0	18.0	12.0
31	5.0	---	0.0	0.0	---	6.0	---	13.0	---	20.0	17.0	---
MONTH	8.5	2.5	0.0	0.0	0.0	2.0	8.5	13.0	14.5	20.0	19.0	15.0
YEAR	MAX	23.0	MIN	0.0	MEAN	8.5						

06280300 SOUTH FORK SHOSHONE RIVER NEAR VALLEY, WY

LOCATION.--Lat 44°12'30", long 109°33'15", in NE¼ sec.24, T.49 N., R.106 W., Park County, Hydrologic Unit 10080013, Shoshone National Forest, on left bank 75 ft (23 m) downstream from U.S. Forest Service bridge, 0.4 mi (0.6 km) downstream from Boulder Creek, 3.2 mi (5.1 km) northeast of Valley, and 34 mi (55 km) southwest of Cody.

DRAINAGE AREA.--297 mi² (769 km²).

PERIOD OF RECORD.--October 1956 to September 1958, October 1959 to current year.

REVISED RECORDS.--WRD WY 1974: 1963.

GAGE.--Water-stage recorder. Altitude of gage is 6,200 ft (1,890 m), from topographic map. Prior to Nov. 22, 1961, at site 75 ft (23 m) upstream at same datum.

REMARKS.--Records good. Diversions for irrigation of about 450 acres (1.82 km²) above station.

AVERAGE DISCHARGE.--19 years, 438 ft³/s (12.40 m³/s), 317,300 acre-ft/yr (391 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,220 ft³/s (233 m³/s) June 15, 1963, gage height, 8.83 ft (2.691 m), from rating curve extended above 3,200 ft³/s (90.6 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 41 ft³/s (1.16 m³/s) Feb. 27, 28, 1961, Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.-- Peak discharges above base of 2,500 ft³/s (70.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 9	2330	3,060	86.7	5.50	1.676
June 22	0100	2,540	71.9	5.10	1.554
July 1	2300	*3,140	88.9	5.56	1.695

Minimum daily discharge, 47 ft³/s (1.33 m³/s) Mar. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	159	90	81	74	60	76	253	1670	2560	1290	267
2	137	172	125	65	76	51	76	371	1930	2420	942	267
3	138	162	120	68	76	53	71	469	2120	2040	799	264
4	137	156	117	80	70	47	91	467	2200	2220	731	250
5	137	153	117	88	58	67	146	364	2280	2340	647	250
6	138	155	112	89	50	74	190	414	2450	2440	616	250
7	138	153	119	84	50	66	146	397	2560	2450	598	260
8	150	148	115	86	63	73	161	665	2570	2500	551	239
9	143	126	110	90	78	73	236	826	2550	2600	512	229
10	147	118	108	87	72	78	187	953	2590	2540	485	219
11	142	112	105	83	70	76	290	1050	2300	2320	458	216
12	179	92	103	85	72	64	362	717	1760	2180	448	219
13	221	104	100	86	73	64	310	853	1440	2080	448	219
14	192	120	87	81	72	69	236	1290	1240	1770	418	212
15	181	126	71	83	69	66	232	1270	1090	1630	408	206
16	176	127	76	92	68	67	209	887	1070	1570	393	203
17	175	127	67	95	68	74	181	1130	1030	1500	366	203
18	207	125	60	91	69	82	161	1540	1090	1570	380	264
19	181	114	72	78	65	82	153	1550	1130	1530	384	267
20	166	82	77	69	65	69	143	1600	1500	1400	371	222
21	159	73	84	74	60	69	140	1660	2170	1380	371	206
22	176	75	90	78	55	69	140	1510	2180	1340	362	232
23	163	96	86	80	61	69	138	1320	1850	1310	375	275
24	141	111	91	80	64	66	133	1310	1490	1280	375	226
25	136	104	101	73	67	69	172	1340	1330	1330	353	212
26	145	90	103	68	68	62	181	1230	1210	1240	344	203
27	150	94	102	72	70	61	164	1450	1210	1140	319	200
28	146	94	80	78	70	55	151	1650	1430	1090	294	190
29	140	91	90	81	66	49	151	1680	1760	1010	290	184
30	155	78	97	81	---	56	181	1740	2110	920	290	178
31	159	---	85	75	---	64	---	1710	---	898	283	---
TOTAL	4896	3537	2960	2501	1939	2044	5208	33666	53310	54598	14901	6832
MEAN	158	118	95.5	80.7	66.9	65.9	174	1086	1777	1761	481	228
MAX	221	172	125	95	78	82	362	1740	2590	2600	1290	275
MIN	136	73	60	65	50	47	71	253	1030	898	283	178
AC-FT	9710	7020	5870	4960	3850	4050	10330	66780	105700	108300	29560	13550

CAL YR 1975 TOTAL 162823 MEAN 446 MAX 4380 MIN 41 AC-FT 323000
WTR YR 1976 TOTAL 186392 MEAN 509 MAX 2600 MIN 47 AC-FT 369700

06281000 SOUTH FORK SHOSHONE RIVER ABOVE BUFFALO BILL RESERVOIR, WY

LOCATION.--Lat 44°25'58", long 109°15'06", in lot 46, sec.33, T.52 N., R.103 W., Park County, Hydrologic Unit 10080013, on right bank at bridge on county road, 1.0 mi (1.6 km) upstream from normal high-water line of Buffalo Bill Reservoir at elevation 5,360 ft (1,634 m), 1.1 mi (1.8 km) downstream from Cody Canal diversion, and 11.5 mi (18.5 km) southwest of Cody.

DRAINAGE AREA.--585 mi² (1,515 km²).

PERIOD OF RECORD.--May to November 1903, May 1905 to May 1908, January 1921 to September 1926, October 1973 to current year. No winter records 1906, 1908, 1922. Published as "at Marquette" 1903, 1905-8, and as Shoshone River above Shoshone Reservoir 1921-26.

REVISED RECORDS.--WSP 1309: 1907.

GAGE.--Water-stage recorder. Altitude of gage is 5,410 ft (1,649 m), from topographic map. Apr. 26 to Nov. 30, 1903, and May 1905 to May 30, 1908, nonrecording gages at sites within about 6.0 mi (9.7 km) downstream at different datums.

REMARKS.--Records good except those for winter period, which are poor. No gage-height record Dec. 3 to Jan. 7 and Feb. 5 to Mar. 8. Diversions for irrigation of about 11,000 acres (44.5 km²) above station.

AVERAGE DISCHARGE.--8 years (water years 1907, 1923-26, 1974-76), 489 ft³/s (13.85 m³/s), 354,300 acre-ft/yr (437 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,120 ft³/s (230 m³/s) July 3, 1975; maximum gage height, 6.15 ft (1.875 m) June 19, 1974, July 6, 1975 (backwater from Buffalo Bill Reservoir); minimum daily discharge, 5.6 ft³/s (0.16 m³/s) Oct. 25, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,650 ft³/s (103 m³/s) July 2, gage height, 5.55 ft (1.692 m); maximum gage height recorded, 5.83 ft (1.777 m) Feb. 6 (backwater from ice); minimum daily discharge, 11 ft³/s (0.31 m³/s) Oct. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	276	160	120	110	90	118	311	1410	2740	849	25
2	14	286	240	95	110	80	126	432	1730	2880	808	27
3	14	276	220	100	115	90	116	556	2000	2170	576	25
4	12	272	210	120	105	85	129	623	2200	2380	518	25
5	24	267	200	130	88	110	179	489	2300	2460	415	27
6	66	267	190	130	75	120	267	477	2500	2620	353	29
7	38	262	200	125	75	130	247	399	2700	2520	339	28
8	13	257	190	130	93	140	227	595	2910	2570	306	25
9	12	222	190	130	120	113	320	855	2830	2630	280	21
10	12	205	180	125	110	106	284	949	2960	2600	255	18
11	11	198	170	120	105	111	353	1210	2560	2450	220	19
12	13	169	170	120	110	92	465	778	1870	2080	217	19
13	77	172	160	120	110	95	449	718	1420	2080	213	18
14	75	194	130	120	110	99	344	1180	1490	1660	195	17
15	71	205	110	120	105	92	315	1500	1260	1490	182	17
16	71	209	120	130	105	97	315	839	1060	1410	150	17
17	80	209	100	140	105	113	280	831	1000	1370	92	16
18	113	209	88	130	105	129	251	1420	1000	1310	92	68
19	106	198	110	110	100	129	239	1550	1040	1420	107	311
20	95	159	120	100	100	102	165	1500	1320	1200	94	125
21	88	140	130	110	90	102	150	1660	2360	1160	87	79
22	121	140	140	115	85	102	150	1540	2540	1100	83	84
23	150	156	130	120	95	108	148	1250	2130	1070	74	239
24	153	172	140	115	100	102	136	1080	1580	985	76	136
25	187	179	150	110	105	104	165	1240	1310	994	52	120
26	243	159	150	100	105	90	224	1010	1160	985	40	107
27	262	159	150	105	105	92	206	1150	1200	800	37	100
28	257	159	120	110	105	88	185	1560	1500	702	35	89
29	248	150	130	120	100	82	199	1580	2000	644	31	77
30	262	130	140	120	---	84	231	1620	2300	524	30	68
31	281	---	130	110	---	97	---	1620	---	518	26	---
TOTAL	3182	6056	4768	3650	2946	3174	6983	32522	55640	51522	6832	1976
MEAN	103	202	154	118	102	102	233	1049	1855	1662	220	65.9
MAX	281	286	240	140	120	140	465	1660	2960	2880	849	311
MIN	11	130	88	95	75	80	116	311	1000	518	26	16
AC-FT	6310	12010	9460	7240	5840	6300	13850	64510	110400	102200	13550	3920

CAL YR 1975 TOTAL 170471 MEAN 467 MAX 6080 MIN 11 AC-FT 338100
WTR YR 1976 TOTAL 179251 MEAN 490 MAX 2960 MIN 11 AC-FT 355500

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY

LOCATION.--Lat 44°31'00", long 109°05'50", in lot 71, NE¼ sec.3, T.52 N., R.102 W., Park County, Hydrologic Unit 10080014, on left bank 0.5 mi (0.8 km) downstream from Trail Creek, 1.0 mi (1.6 km) west of Cody city limits, and 5.5 mi (8.8 km) downstream from Buffalo Bill Reservoir.

DRAINAGE AREA.--1,538 mi^2 (3,983 km^2). Area at site prior to Oct. 1, 1949, 1,502 mi^2 (3,890 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1921 to current year. Prior to October 1944, published as "below Shoshone Reservoir".

GAGE.--Water-stage recorder. Altitude of gage is 4,900 ft (1,494 m), from topographic map. Prior to Oct. 1, 1949, at site 2.5 mi (4.0 km) upstream at different datum.

REMARKS.--Records good. Flow completely regulated by Buffalo Bill Reservoir. (See page 286.) Diversions above station for irrigation of about 56,100 acres (227 km^2), of which about 37,900 acres (153 km^2) lies below station. Diversion, 2.1 mi (3.4 km) upstream, to Heart Mountain Canal began in 1943.

AVERAGE DISCHARGE.--21 years (water years 1922-42), prior to Heart Mountain diversion, 1,256 ft^3/s (35.57 m^3/s), 909,300 acre-ft/yr (1,121 hm^3/yr); 34 years (water years 1943-76), 1,163 ft^3/s (32.94 m^3/s), 842,600 acre-ft/yr (1,039 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,700 ft^3/s (416 m^3/s) May 28, 1928, gage height, 10.62 ft (3.237 m), site and datum then in use, from rating curve extended above 11,000 ft^3/s (312 m^3/s); minimum daily, 14 ft^3/s (0.40 m^3/s) Nov. 19, 1933.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood known since construction of Buffalo Bill Reservoir, 18,700 ft^3/s (530 m^3/s) June 15, 1918, by computation of flow over dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,060 ft^3/s (143 m^3/s) July 15, gage height, 7.58 ft (2.310 m); minimum daily, 429 ft^3/s (12.1 m^3/s) Nov. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	849	789	540	737	458	760	737	2320	2530	2120	1600	1210
2	850	788	768	738	459	760	737	2320	2580	2110	1690	1190
3	859	569	749	738	528	750	736	2340	2580	2090	1600	1200
4	857	431	738	735	677	740	735	2340	2570	2090	1580	1200
5	853	429	737	577	766	730	737	2330	2560	2080	1530	1200
6	855	430	730	460	752	730	738	2340	2590	2080	1570	1210
7	852	431	726	456	741	730	736	2330	3090	2090	1590	1210
8	850	431	729	456	742	730	738	2330	3910	2100	1580	1220
9	850	430	732	459	743	734	749	2330	3930	2150	1570	1150
10	801	431	732	456	743	753	1100	2340	3970	2480	1570	1100
11	764	431	732	457	741	765	1750	2350	4000	3340	1450	1100
12	765	431	732	459	741	744	2010	2360	3990	4190	1350	1100
13	765	431	729	460	741	743	2100	2350	3990	4900	1380	1100
14	760	431	728	456	741	744	2100	2360	4080	4740	1380	1060
15	770	433	723	456	740	743	2110	2370	4030	4170	1370	1030
16	760	435	729	464	739	743	2110	2380	4010	3840	1320	1030
17	762	435	737	467	742	754	2100	2390	3990	3560	1250	1040
18	768	435	738	447	745	747	2100	2410	3970	3330	1260	978
19	765	435	736	464	745	743	2090	2400	3970	3270	1270	911
20	816	435	732	458	745	746	2220	2400	3980	3060	1260	899
21	792	435	732	464	743	746	2360	2420	3980	2800	1260	819
22	813	435	737	465	740	746	2380	2430	3990	2580	1260	753
23	804	434	679	464	740	746	2380	2420	3990	2450	1270	733
24	803	435	743	465	740	740	2360	2430	4000	2330	1260	733
25	800	435	739	465	740	739	2360	2440	4000	2210	1240	736
26	801	435	737	464	750	738	2500	2450	3990	2140	1220	731
27	799	435	737	463	750	739	2480	2450	3990	2030	1210	727
28	799	435	738	459	750	738	2390	2460	3040	1860	1210	722
29	804	431	737	460	750	738	2320	2480	2110	1720	1210	724
30	804	431	737	459	---	738	2340	2480	2110	1620	1210	716
31	799	---	738	458	---	736	---	2500	---	1600	1210	---
TOTAL	24989	13832	22551	15486	20732	23033	52303	74050	105540	83130	42730	29532
MEAN	806	461	727	500	715	743	1743	2389	3518	2682	1378	984
MAX	859	789	768	738	766	765	2500	2500	4080	4900	1690	1220
MIN	760	429	540	447	458	730	735	2320	2110	1600	1210	716
AC-FT	49570	27440	44730	30720	41120	45690	103700	146900	209300	164900	84750	58580

CAL YR 1975 TOTAL 442395 MEAN 1212 MAX 6660 MIN 429 AC-FT 877500
WTR YR 1976 TOTAL 507908 MEAN 1388 MAX 4900 MIN 429 AC-FT 1007000

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-49, 1965 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: April 1947 to September 1949, April to September 1976.

INSTRUMENTATION.--Temperature recorder since April 1976.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 18.0°C July 31, Aug. 1, 1947; minimum daily, 0.0°C on many days during winter months.

EXTREMES FOR PERIOD APRIL TO SEPTEMBER.--
WATER TEMPERATURES: Maximum, 17.0°C on several days during July and September; minimum, 4.5°C Apr. 13.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 06...	0930	853	14.0	15	8.2	B5	280	77
NOV 10...	0845	431	10.0	10	8.5	B3	300	95
DEC 08...	0900	732	6.0	8	9.2	B2	280	130
JAN 12...	0915	456	4.5	4	10.4	B3	280	91
FEB 09...	0900	744	5.0	2	9.9	B1	310	150
MAR 10...	0930	708	4.0	3	10.9	B2	240	76
APR 12...	0930	1930	5.0	5	10.0	B1	130	15
MAY 09...	1345	2340	10.0	20	9.3	B3	120	13
JUN 14...	1600	4080	10.0	15	10.2	B8	60	2
JUL 12...	1600	4290	18.0	10	7.7	B4	59	5
AUG 08...	1430	1560	16.0	1	7.9	B4	130	54
SEP 05...	1530	1190	18.0	2	7.5	B3	110	20

B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 06...	61	12	15	.5	2.6	150	0	123	100
NOV 10...	90	20	20	.5	4.0	250	0	205	150
DEC 08...	84	16	17	.4	3.0	180	0	148	150
JAN 12...	81	18	26	.7	3.5	230	0	189	120
FEB 09...	92	19	23	.6	3.7	190	0	156	190
MAR 10...	72	16	23	.6	4.9	200	0	164	130
APR 12...	37	9.4	23	.9	2.1	140	0	115	66
MAY 09...	34	7.8	22	.9	2.1	130	0	107	50
JUN 14...	17	4.3	9.9	.6	.9	71	0	58	20
JUL 12...	17	4.0	9.9	.6	.5	66	0	54	21
AUG 08...	40	8.0	9.9	.4	1.2	93	0	76	72
SEP 05...	32	7.6	11	.5	2.3	110	0	90	44

06282000 SHOSHONE RIVER BELOW BUFFALO BILL RESERVOIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT 06...	4.3	.4	15	290	.39	668	.05	.10
NOV 10...	5.3	.6	15	424	.58	493	.05	.05
DEC 08...	2.8	.5	16	376	.51	743	.05	.05
JAN 12...	4.5	.6	14	385	.52	474	.02	.03
FEB 09...	4.5	.6	15	445	.61	894	.05	.04
MAR 10...	4.2	.5	16	360	.49	688	.02	.01
APR 12...	5.4	.2	15	225	.31	1170	.02	.03
MAY 09...	1.8	.2	15	199	.27	1260	.05	.10
JUN 14...	.7	.2	16	104	.14	1150	.02	.10
JUL 12...	1.9	.2	16	103	.14	1190	.02	.09
AUG 08...	1.9	.3	14	196	.27	826	.54	.04
SEP 05...	1.8	.4	14	168	.23	540	.14	.03

DATE	TIME	PCB IN BOTTOM MA-TERIAL (UG/KG)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG)	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG)	DDD IN BOTTOM MA-TERIAL (UG/KG)	DDE IN BOTTOM MA-TERIAL (UG/KG)	DDT IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DI-AZINON (UG/L)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG)	ENDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ETHION (UG/L)	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG)
SEP 05...	1530	0	.0	0	.0	.0	.0	.00	.0	.0	.00	.0

DATE	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG)	LINDANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL MALA-THION (UG/L)	TOTAL METHYL PARA-THION (UG/L)	TOTAL METHYL TRI-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
SEP 05...	.0	.0	.00	.00	.00	.00	0	.00	.00	.02	.00

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	---	---	8.5	8.0	10.5	10.0	12.5	12.0	14.5	14.5	15.5	14.5
2	---	---	8.5	8.0	10.0	9.5	12.5	12.0	14.5	14.5	15.5	14.5
3	---	---	8.5	8.0	10.0	9.5	13.0	12.0	14.5	14.0	15.0	14.5
4	---	---	8.5	8.0	10.0	9.5	13.0	12.0	14.5	14.0	15.5	14.5
5	---	---	8.5	8.0	10.0	9.5	12.5	12.0	14.5	13.5	15.5	14.5
6	---	---	8.0	7.5	10.0	9.5	13.5	12.5	13.5	13.0	15.0	14.5
7	---	---	8.5	7.5	10.0	9.5	13.0	12.5	13.5	12.5	15.5	14.5
8	8.0	6.5	9.0	8.0	10.0	10.0	13.5	12.5	13.5	12.5	15.5	14.5
9	7.0	6.0	9.0	8.5	10.0	10.0	13.0	12.5	14.0	13.0	16.0	15.0
10	6.5	5.5	9.0	8.5	10.0	10.0	15.5	13.0	13.5	13.0	16.0	15.0
11	5.5	5.0	10.0	9.0	11.0	9.5	16.0	14.0	14.0	13.0	15.5	15.0
12	5.5	5.0	10.0	9.0	12.0	10.0	16.0	13.5	14.0	13.0	15.5	15.0
13	5.0	4.5	9.5	9.0	11.5	10.0	15.5	13.5	14.0	13.0	16.0	15.0
14	6.0	5.0	10.0	9.5	10.5	10.0	15.5	13.5	14.5	13.0	15.5	15.0
15	6.0	6.0	9.5	9.0	11.0	10.5	15.5	13.0	14.0	13.0	16.0	15.0
16	6.0	6.0	9.5	9.0	11.0	10.5	15.5	14.5	14.0	13.0	16.0	15.0
17	6.0	5.5	9.5	9.0	10.5	10.5	16.0	15.5	14.0	13.0	16.0	15.0
18	6.5	6.0	9.5	9.0	11.0	10.5	16.5	16.0	14.0	13.5	16.0	15.0
19	6.5	6.5	10.0	9.5	11.0	10.5	16.5	16.5	14.0	13.5	16.0	15.0
20	7.0	6.5	10.0	9.5	11.0	10.5	16.5	16.0	14.5	13.5	16.5	15.5
21	7.0	6.0	10.0	9.5	11.5	10.5	17.0	16.0	14.0	13.5	17.0	15.5
22	7.0	6.5	10.0	9.5	11.0	11.0	17.0	15.0	14.5	13.5	16.0	15.5
23	7.5	7.0	10.0	9.5	12.0	11.0	16.5	15.0	14.5	13.5	16.5	15.5
24	8.0	7.5	10.0	9.5	12.5	12.0	17.0	15.5	14.5	14.0	16.5	15.5
25	8.0	7.5	11.0	9.5	12.5	11.5	16.5	15.0	15.0	14.0	16.0	15.5
26	7.5	7.5	11.0	9.5	12.5	11.5	16.5	15.0	14.0	13.5	15.5	15.5
27	8.0	7.5	10.5	9.5	13.0	12.5	17.0	16.5	15.0	13.5	16.5	15.5
28	8.5	8.0	10.0	10.0	13.0	12.0	17.0	16.0	15.0	14.0	16.5	15.0
29	8.5	8.0	10.0	9.5	13.0	12.0	16.0	15.5	15.0	14.0	16.5	15.0
30	8.5	8.0	10.5	9.5	13.0	12.0	15.5	15.0	15.0	14.0	16.0	15.0
31	---	---	10.5	9.5	---	---	15.5	14.5	15.0	14.5	---	---
MONTH	---	---	11.0	7.5	13.0	9.5	17.0	12.0	15.0	12.5	17.0	14.5
YEAR	17.0	4.5										

06282900 SHOSHONE RIVER ABOVE DRY CREEK, NEAR CODY, WY

LOCATION.--Lat 44°34'37", long 108°58'18", in SE¼NW¼NW¼ sec.13, T.53 N., R.101 W., Park County, Hydrologic Unit 10080014, at bridge on U.S. Highway 14A, 160 ft (49 m) downstream from Dry Gulch, 480 ft (146 m) upstream from Dry Creek, 0.4 mi (0.6 km) south of Trotters Station, and 5.5 mi (8.8 km) northeast of Cody.

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 06...	1030	872	13.5	13	9.6	38	190	49
NOV 10...	0930	600	6.5	8	10.9	B6	320	100
DEC 08...	0930	771	5.0	10	10.6	B15	210	55
JAN 12...	0800	450	2.5	5	10.2	B150	320	110
FEB 09...	1000	686	4.5	4	11.2	23	220	47
MAR 10...	1015	740	4.5	6	12.6	B12	220	52
APR 12...	1030	1660	6.5	20	10.1	B13	130	13
MAY 09...	1245	2110	12.0	25	9.2	29	120	9
JUN 14...	1500	3640	10.0	45	9.7	B240	78	11
JUL 12...	1500	3520	19.0	7	7.7	22	68	8
AUG 08...	1330	1580	17.0	6	8.4	34	130	35
SEP 05...	1440	1190	19.0	6	8.6	27	160	50

B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 06...	54	14	29	.9	3.0	175	144	110	1.8
NOV 10...	94	21	39	.9	4.5	264	217	180	4.5
DEC 08...	61	15	33	1.0	3.2	194	159	130	3.1
JAN 12...	88	24	49	1.2	4.5	260	213	190	3.6
FEB 09...	62	16	36	1.1	3.5	212	174	130	2.7
MAR 10...	63	16	35	1.0	3.4	209	171	120	3.5
APR 12...	36	9.6	29	1.1	2.1	142	116	73	1.8
MAY 09...	34	9.6	26	1.0	2.4	141	116	72	2.2
JUN 14...	22	5.5	18	.9	1.7	81	66	53	1.4
JUL 12...	19	5.1	12	.6	1.6	74	61	32	1.3
AUG 08...	36	9.1	19	.7	2.1	113	93	81	2.0
SEP 05...	44	11	23	.8	2.4	128	105	95	8.4

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)
OCT 06...	.3	15	314	.43	739	.01	--	100
NOV 10...	.5	15	490	.67	794	.20	--	140
DEC 08...	.4	15	357	.49	743	.15	--	130
JAN 12...	.6	15	504	.69	612	.21	--	150
FEB 09...	.4	15	370	.50	685	.04	.05	--
MAR 10...	.4	15	360	.49	719	.04	.04	--
APR 12...	.3	15	237	.32	1060	.00	.08	--
MAY 09...	.3	14	231	.31	1320	.12	.05	--
JUN 14...	.2	15	157	.21	1540	.12	.06	--
JUL 12...	.2	15	123	.17	1170	.04	.09	--
AUG 08...	.2	15	221	.30	943	.10	.06	--
SEP 05...	.3	18	266	.36	855	.11	.08	--

06284200 SHOSHONE RIVER AT WILLWOOD, WY

LOCATION.--Lat 44°42'32", long 108°45'31", in NW¼NE¼NE¼ sec.34, T.55 N., R.99 W., Park County, Hydrologic Unit 10080014, on left bank 25 ft (8 m) downstream from bridge on State Secondary Highway 1505, 0.7 mi (1.1 km) north of Willwood, and 3.0 mi (4.8 km) south of Powell.

DRAINAGE AREA.--1,980 mi² (5,128 km²).

PERIOD OF RECORD.--April 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,300 ft (1,311 m), from topographic map.

REMARKS.--Records good. Flow regulated by Buffalo Bill Reservoir. (See page 286.) Diversions above station for irrigation of about 92,500 acres (374 km²), of which about 46,800 acres (189 km²) lies below station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,100 ft³/s (343 m³/s) June 20, 1974, gage height, 10.43 ft (3.179 m); minimum daily, 369 ft³/s (10.4 m³/s) Sept. 19, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,170 ft³/s (146 m³/s) June 14, gage height, 8.03 ft (2.448 m); minimum daily, 447 ft³/s (12.7 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN		AUG	SEP
1	447	1010	666	855	568	799	869	2080	1720	1400	1020	704
2	489	1000	946	911	562	806	883	2020	1720	1340	1170	704
3	489	890	967	960	562	827	876	1900	1600	1310	1250	704
4	465	666	925	1070	652	806	876	1810	1610	1280	1320	737
5	477	659	911	974	880	806	876	1720	1740	1250	1300	737
6	501	607	876	543	850	799	834	1770	1830	1200	1320	750
7	507	581	876	543	850	806	799	1760	2090	1170	1290	799
8	562	581	883	594	850	813	778	1750	3210	1180	1310	813
9	568	581	904	646	848	820	666	1720	3280	1170	1250	785
10	588	574	904	562	862	848	869	1700	3290	1550	1190	711
11	501	568	883	543	841	876	1600	1700	3420	2030	1150	724
12	525	562	876	549	876	820	1930	1700	3420	3020	995	737
13	659	574	862	549	869	806	1910	1650	3470	3610	974	764
14	666	581	869	549	841	813	1860	1650	4580	3610	946	785
15	678	574	862	543	820	813	1850	1700	3890	3200	946	785
16	685	574	862	574	813	827	1850	1700	4080	2880	911	757
17	711	574	869	652	820	897	1850	1690	4100	2560	799	778
18	750	574	904	633	813	925	1840	1640	4070	2380	806	827
19	771	562	862	568	806	897	1750	1650	4050	2330	806	792
20	799	549	869	555	806	813	1850	1650	4070	2170	806	750
21	607	549	869	555	806	813	2100	1670	4010	1970	785	750
22	771	543	869	555	806	827	1980	1610	4010	1760	806	614
23	1130	549	862	562	820	834	1940	1600	3870	1630	792	620
24	1130	555	862	555	820	855	1860	1640	3890	1500	764	666
25	1100	549	862	555	827	862	1780	1700	3800	1410	698	685
26	1130	562	862	549	841	820	2660	1720	3780	1340	633	718
27	1090	555	862	614	841	737	2660	1730	3710	1250	659	744
28	1050	549	848	562	834	737	2480	1740	2800	1120	666	730
29	1040	568	855	568	813	855	2250	1720	1550	1000	685	724
30	1040	588	855	568	---	869	2250	1750	1450	939	685	737
31	1040	---	841	568	---	883	---	1770	---	953	737	---
TOTAL	22966	18408	27023	19584	23197	25709	48576	53610	94110	55512	29469	22131
MEAN	741	614	872	632	800	829	1619	1729	3137	1791	951	738
MAX	1130	1010	967	1070	880	925	2660	2080	4580	3610	1320	827
MIN	447	543	666	543	562	737	666	1600	1450	939	633	614
AC-FT	45550	36510	53600	38840	46010	50990	96350	106300	186700	110100	58450	43900

CAL YR 1975 TOTAL 374336 MEAN 1026 MAX 6170 MIN 447 AC-FT 742500
WTR YR 1976 TOTAL 440295 MEAN 1203 MAX 4580 MIN 447 AC-FT 873300

06284400 SHOSHONE RIVER NEAR GARLAND, WY

LOCATION.--Lat 44°44'20", long 108°35'38", in SE¼SE¼ sec.13, T.55 N., R.98 W., Park County, Hydrologic Unit 10080014, on right bank 50 ft (15 m) downstream from bridge on county road, 600 ft (183 m) downsteam from Penrose Dam, 1.3 mi (2.1 km) upstream from Bitter Creek, 4.3 mi (6.9 km) southeast of Garland, and 8.0 mi (12.9 km) east of Powell.

DRAINAGE AREA.--2,036 mi² (5,273 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,073.67 ft (1,241.655 m) above mean sea level. Prior to Nov. 12, 1965, at site 50 ft (15 m) upstream at present datum. Nov. 12, 1965, to June 13, 1968, at site 150 ft (46 m) upstream at datum 3.64 ft (1.109 m) higher.

REMARKS.--Records good. Flow regulated by Buffalo Bill Reservoir. (See page 286.) Diversions above station for irrigation of about 143,000 acres (579 km²), of which 37,000 acres (150 km²) lies below station.

AVERAGE DISCHARGE.--18 years, 698 ft³/s (19.77 m³/s), 505,700 acre-ft/yr (624 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,300 ft³/s (377 m³/s) July 1, 1967, gage height, 8.76 ft (2.670 m), from floodmark, site and datum then in use; minimum daily, 5.0 ft³/s (0.14 m³/s) May 25, 26, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,240 ft³/s (148 m³/s) June 14, gage height, 7.66 ft (2.341 m); minimum daily, 214 ft³/s (6.06 m³/s) Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	280	935	618	826	525	778	786	1890	1210	874	750	316
2	286	917	882	874	520	754	794	1800	1200	850	850	338
3	270	858	990	882	525	794	786	1670	1100	834	926	330
4	266	564	935	926	618	810	786	1580	1100	802	1020	372
5	274	582	899	920	850	778	794	1450	1240	754	980	390
6	282	564	866	564	800	778	786	1480	1350	695	1160	400
7	294	535	858	540	750	770	778	1450	1560	674	1020	440
8	338	535	866	576	800	778	730	1370	3000	667	926	445
9	342	530	882	630	834	778	624	1360	3110	642	834	431
10	377	525	882	624	826	810	730	1310	3200	926	723	364
11	298	520	866	570	818	850	1570	1220	3470	1390	716	395
12	310	515	858	550	866	778	2040	1180	3320	2590	535	418
13	445	515	842	546	858	770	2070	1120	3330	3170	515	450
14	465	540	826	558	818	778	1940	1120	4550	3240	495	440
15	500	552	842	546	786	778	1870	1200	3820	2900	490	426
16	540	552	842	535	786	786	1930	1180	3840	2580	475	404
17	588	558	890	606	794	858	1930	1170	3900	2260	354	422
18	612	552	917	606	794	908	1930	1080	3800	2010	354	490
19	618	540	860	530	778	890	1830	1080	3620	1970	372	470
20	642	530	860	535	786	786	1870	1060	3700	1740	390	431
21	505	540	860	530	778	778	2120	1080	3680	1540	372	422
22	594	525	858	530	778	786	1900	1060	3900	1290	390	278
23	1010	535	866	535	786	794	1760	1060	3760	1130	368	290
24	944	540	866	525	794	794	1670	1100	3760	1020	350	314
25	899	525	850	520	802	802	1570	1150	3580	944	290	334
26	953	530	842	520	810	770	2420	1170	3580	962	214	350
27	890	530	850	535	818	695	2500	1170	3490	900	232	377
28	826	535	826	535	810	642	2370	1190	2690	800	238	372
29	826	530	834	530	794	786	2100	1190	1100	700	274	372
30	826	525	834	535	---	786	2060	1250	935	600	318	386
31	899	---	826	525	---	794	---	1270	---	650	326	---
TOTAL	17199	17234	26593	18764	22302	24437	47044	39460	85895	42104	17257	11669
MEAN	555	574	858	605	769	788	1568	1273	2863	1358	557	389
MAX	1010	935	990	926	866	908	2500	1890	4550	3240	1160	490
MIN	266	515	618	520	520	642	624	1060	935	600	214	278
AC-FT	34110	34180	52750	37220	44240	48470	93310	78270	170400	83510	34230	23150

CAL YR 1975 TOTAL 322759 MEAN 884 MAX 5710 MIN 266 AC-FT 640200
WTR YR 1976 TOTAL 369958 MEAN 1011 MAX 4550 MIN 214 AC-FT 733800

06284400 SHOSHONE RIVER NEAR GARLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)
OCT 01...	1615	270	600	11.0
NOV 03...	1530	899	740	10.0
DEC 03...	0930	962	650	4.0
JAN 05...	1400	A920	610	.0
MAR 05...	1230	A778	630	.0
APR 07...	1145	810	690	9.0
MAY 03...	1750	1690	420	11.5
JUN 02...	1345	1210	360	13.5
JUL 13...	1415	3350	130	16.0
AUG 02...	1635	866	430	18.0
SEP 03...	1330	346	520	17.5

A Daily mean discharge.

06284500 BITTER CREEK NEAR GARLAND, WY

LOCATION.--Lat 44°45'13", long 108°35'29", in SW¼SW¼SW¼ sec.7, T.55 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on left bank 100 ft (30 m) downstream from bridge on county road, 1.0 mi (1.6 km) upstream from mouth, 4.0 mi (6.4 km) southeast of Garland, and 5.0 mi (8.0 km) southwest of Byron.

DRAINAGE AREA.--80.5 mi^2 (208.5 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1950 to December 1953, October 1957 to September 1960, October 1968 to current year.

REVISED RECORDS.--WSP 1709: Drainage area. WRD WY 1975: 1960(M), 1969(M), 1973(M).

GAGE.--Water-stage recorder. Altitude of gage is 4,080 ft (1,244 m), from topographic map.

REMARKS.--Records good except those for October to March, which are poor. Flow is mainly return flow from Garland Canal system of Shoshone irrigation project.

AVERAGE DISCHARGE.--14 years (water years 1951-53, 1958-60, 1969-76), 148 ft^3/s (4.191 m^3/s), 107,200 acre-ft/yr (132 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft^3/s (34.8 m^3/s) July 4, 1975, gage height, 4.74 ft (1.445 m), from rating curve extended above 580 ft^3/s (16.4 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft^3/s (0.014 m^3/s) Jan. 30 to Feb. 3, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 601 ft^3/s (17.0 m^3/s) June 14, gage height, 3.29 ft (1.003 m), minimum daily, 15 ft^3/s (0.42 m^3/s) Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	289	48	32	18	20	18	20	126	299	212	355	305
2	292	46	33	17	18	19	18	189	277	228	388	299
3	283	44	35	16	18	18	18	196	259	250	376	265
4	283	44	33	17	18	25	18	200	266	289	322	271
5	272	43	31	18	15	27	18	212	280	288	289	284
6	281	43	29	18	16	28	18	231	326	255	273	305
7	278	41	29	18	18	25	18	228	361	235	274	310
8	281	41	29	18	19	19	19	212	339	224	291	298
9	262	40	30	18	21	19	19	205	314	222	271	297
10	264	40	30	18	21	21	19	216	292	219	261	283
11	264	38	29	18	20	21	25	214	292	214	263	261
12	256	36	29	18	21	17	55	198	303	236	255	284
13	286	37	27	18	23	19	68	210	326	224	243	287
14	320	37	20	17	21	19	138	210	406	229	260	262
15	270	37	24	17	19	18	134	233	238	239	303	247
16	275	37	23	17	18	19	140	241	231	243	301	261
17	270	36	21	18	18	25	131	249	233	249	275	255
18	233	35	20	18	18	28	119	219	228	256	270	253
19	244	33	19	18	18	23	113	214	236	257	268	261
20	233	31	19	18	18	21	113	214	231	247	272	264
21	219	31	18	18	18	20	113	210	226	242	265	259
22	228	32	18	19	18	19	113	224	221	260	268	250
23	127	32	18	19	18	19	116	241	224	263	261	252
24	75	32	17	19	18	18	119	262	224	299	242	249
25	53	34	17	19	19	18	131	272	210	305	252	230
26	57	34	17	18	20	18	161	267	219	319	252	245
27	50	33	18	19	21	18	77	267	219	296	255	241
28	48	32	19	19	20	18	53	272	216	294	257	233
29	51	30	19	19	19	18	111	283	210	295	284	229
30	51	30	19	19	---	35	126	297	205	317	310	234
31	50	---	18	19	---	30	---	314	---	320	313	---
TOTAL	6445	1107	740	560	549	660	2341	7126	7911	8026	8769	7974
MEAN	208	36.9	23.9	18.1	18.9	21.3	78.0	230	264	259	283	266
MAX	320	48	35	19	23	35	161	314	406	320	388	310
MIN	48	30	17	16	15	17	18	126	205	212	242	229
AC-FT	12780	2200	1470	1110	1090	1310	4640	14130	15690	15920	17390	15820

CAL YR 1975 TOTAL 55775 MEAN 153 MAX 486 MIN 14 AC-FT 110600
WTR YR 1976 TOTAL 52208 MEAN 143 MAX 406 MIN 15 AC-FT 103600

06284500 BITTER CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at bridge on county road 100 ft (30 m) upstream from discharge station.

PERIOD OF RECORD.--Water years 1951-53, 1958-61, 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1969 to current year.
WATER TEMPERATURES: July 1969 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,150 micromhos Dec. 12, 1972; minimum daily, 540 micromhos Apr. 18, 1972.
WATER TEMPERATURES: Maximum, 25.0°C July 23, 24, 1976; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,260 micromhos Jan. 3; minimum daily, 573 micromhos Apr. 23.
WATER TEMPERATURES: Maximum, 25.0°C July 23, 24; minimum, 0.0°C on many days during November to March.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 06...	1200	289	750	13.0	45	9.2	500	220	38
NOV 10...	1145	39	1450	4.5	4	15.0	390	300	10
DEC 08...	1200	29	1900	4.5	3	13.2	130	350	46
JAN 12...	1130	A18	1500	.5	20	10.6	B1300	340	31
FEB 09...	1145	A21	1400	.5	9	11.2	B1800	320	16
MAR 10...	1410	21	1680	6.5	5	11.1	835	350	53
APR 11...	1500	18	1700	16.0	4	14.2	810	310	130
MAY 09...	1100	216	640	12.0	120	9.3	590	190	26
JUN 14...	1240	372	700	8.0	500	10.1	B1600	160	30
JUL 12...	1310	228	680	20.0	100	7.4	880	180	13
AUG 08...	1130	303	730	17.0	20	7.8	440	210	37
SEP 05...	1245	305	800	17.0	70	8.2	680	220	41

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 06...	58	19	77	2.2	3.3	226	185	190	3.6
NOV 10...	74	26	200	5.0	3.6	354	290	400	14
DEC 08...	87	32	250	5.8	3.8	370	303	550	16
JAN 12...	85	32	240	5.6	4.3	382	313	520	15
FEB 09...	77	31	210	5.1	4.5	370	303	420	17
MAR 10...	85	33	260	6.1	4.1	360	295	580	18
APR 11...	68	33	290	7.2	4.9	219	180	620	26
MAY 09...	51	16	79	2.5	3.0	204	167	170	7.1
JUN 14...	42	14	100	3.4	2.7	162	133	220	7.0
JUL 12...	47	16	82	2.6	2.9	207	170	170	6.0
AUG 08...	55	18	81	2.4	2.6	213	175	190	6.0
SEP 05...	57	18	81	2.4	3.4	214	176	180	6.8

06284500 BITTER CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)
OCT 06...	.5	15	483	.66	377	1.1	--	.05	130
NOV 10...	1.2	17	931	1.27	98.0	4.2	--	.12	210
DEC 08...	1.2	16	1160	1.58	90.8	4.2	--	.18	220
JAN 12...	1.1	18	1120	1.52	54.4	4.4	--	.43	200
FEB 09...	1.1	18	982	1.34	55.7	4.7	.56	.49	--
MAR 10...	1.1	14	1190	1.62	67.5	3.9	.42	.32	--
APR 11...	1.0	3.3	1160	1.58	56.4	2.0	.23	.08	--
MAY 09...	.5	15	453	.62	264	2.4	.35	.07	--
JUN 14...	.5	14	492	.67	494	2.7	.13	.05	--
JUL 12...	.6	17	455	.62	280	2.5	.45	.10	--
AUG 08...	.6	17	485	.66	397	2.3	.09	.05	--
SEP 05...	.7	17	478	.65	394	2.0	.18	.06	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	757	1390	1560	1270	1530	1520	1740	852	633	700	727	750
2	756	1390	1630	1670	1600	1540	1740	716	677	673	686	748
3	768	1400	1870	2260	1630	1780	1810	667	696	683	716	720
4	768	1440	1770	1860	1530	1640	1650	674	673	630	689	738
5	769	1470	1770	1470	1640	1600	1670	685	653	620	738	721
6	756	1500	1720	1470	1610	1550	1770	643	659	640	738	739
7	768	1460	1700	1530	1520	1690	1800	621	659	670	700	739
8	780	1470	1630	1550	1520	1670	1790	686	628	670	673	803
9	780	1400	1670	1500	1390	1790	1770	637	595	740	720	751
10	776	1500	1730	1500	1450	1770	1650	611	612	722	730	748
11	809	1520	1700	1500	1570	1810	1030	682	628	740	763	751
12	814	1510	1730	1540	1570	1790	1040	669	647	725	750	751
13	787	1490	1620	1550	1620	1650	1100	666	753	720	748	798
14	798	1650	1670	1510	1550	1680	601	635	747	710	745	803
15	819	1600	1590	1530	1550	1650	650	627	760	720	715	798
16	815	1570	1590	1480	1630	1600	606	656	742	711	723	787
17	782	1430	1560	1490	1620	1660	594	658	657	720	750	782
18	815	1510	1550	1630	1660	1400	698	701	675	720	728	782
19	815	1420	1550	1640	1710	1580	661	690	675	708	752	798
20	777	1540	1550	1620	1640	1590	592	700	640	758	746	785
21	829	1560	1560	1600	1550	1590	612	705	640	756	736	811
22	867	1560	1540	1590	1560	1870	622	727	636	732	724	808
23	997	1560	1550	1600	1600	1870	573	707	654	713	753	825
24	1220	1440	1570	1600	1600	1880	629	690	653	703	775	825
25	1320	1530	1540	1610	1620	1740	628	684	682	673	771	841
26	1330	1640	1540	1610	1600	1610	626	676	648	708	787	811
27	1330	1630	1540	1570	1670	1820	1550	670	624	734	776	842
28	1380	1620	1610	1570	1740	1820	1930	692	628	728	792	821
29	1380	1650	1680	1500	1640	1900	918	684	652	710	720	811
30	1360	1630	1680	1550	---	1170	774	658	685	701	709	826
31	1380	---	1910	1530	---	1160	---	657	---	717	715	---
MONTH	939	1520	1640	1580	1590	1660	1130	678	664	705	735	784
YEAR	MAX	2260	MIN	573	MEAN	1130						

06284500 BITTER CREEK NEAR GARLAND, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	5.0	1.0	0.0	2.0	3.0	4.0	7.0	11.5	15.0	18.0	20.0
2	17.0	10.0	2.0	0.0	3.5	5.0	12.0	14.0	17.0	16.5	18.5	20.0
3	13.0	7.5	4.0	0.0	0.5	0.0	2.0	17.0	18.0	14.0	18.0	19.0
4	15.0	7.5	4.0	0.0	0.5	0.0	17.0	14.0	15.0	20.0	18.0	19.0
5	17.0	4.0	7.0	0.0	0.0	0.0	16.5	13.5	12.5	15.0	19.5	15.0
6	14.0	4.5	3.0	0.0	0.0	3.5	6.5	13.0	12.0	15.5	18.5	17.5
7	13.0	5.0	3.5	0.0	0.0	0.0	7.0	8.0	11.5	22.0	21.0	16.0
8	10.5	7.0	2.5	0.0	0.0	3.0	6.0	17.5	18.0	22.5	18.5	17.0
9	11.0	6.0	3.0	0.0	1.5	2.0	6.5	16.0	15.0	22.0	20.0	16.0
10	15.0	3.0	5.0	0.0	0.5	1.0	18.0	13.0	13.0	18.0	17.5	17.5
11	14.0	3.0	4.5	0.0	2.0	0.0	7.5	12.0	12.5	21.0	19.5	17.0
12	11.5	3.0	5.0	0.0	2.0	0.0	8.0	16.0	12.0	22.0	19.0	16.5
13	10.5	5.0	1.5	0.5	2.5	0.5	8.0	16.5	9.0	21.5	17.0	17.0
14	8.0	6.0	1.0	0.0	3.0	1.0	7.0	16.5	13.0	18.0	18.5	17.5
15	11.5	7.0	1.0	0.0	3.0	9.0	14.0	12.0	15.0	22.5	18.5	18.0
16	11.0	8.0	1.0	1.0	1.0	11.0	6.5	14.5	11.5	22.0	21.0	17.5
17	10.5	6.0	0.0	0.0	0.5	12.0	6.5	18.0	13.5	22.0	20.5	18.0
18	14.0	4.5	0.0	0.0	0.5	12.0	10.5	12.0	16.0	21.0	20.5	14.0
19	12.5	1.0	0.0	0.0	0.5	6.5	6.0	11.0	17.5	18.0	20.5	11.0
20	12.0	0.0	0.0	0.5	4.5	7.0	5.0	12.0	16.5	17.5	20.0	16.0
21	11.0	1.0	0.5	0.5	3.0	8.5	5.5	11.0	18.5	18.5	19.5	12.5
22	7.0	1.5	1.0	1.0	3.5	2.5	6.0	13.0	18.0	21.0	20.0	13.0
23	7.5	5.0	0.5	3.0	5.0	3.0	7.0	14.0	14.5	25.0	20.0	14.0
24	7.0	5.0	0.0	0.0	7.0	1.5	7.5	10.5	11.0	25.0	20.5	17.5
25	6.0	2.0	0.0	0.0	8.0	7.0	6.5	11.5	12.0	16.5	20.0	17.0
26	9.0	0.0	0.5	0.0	8.5	11.0	3.0	16.5	16.0	19.0	17.0	11.0
27	7.5	0.5	1.0	1.0	9.0	2.5	7.0	19.0	18.0	19.0	18.5	10.0
28	9.0	0.0	1.0	2.0	3.0	3.0	6.0	19.5	20.5	22.0	20.0	11.0
29	9.5	0.0	0.5	2.0	3.5	1.0	12.5	14.5	13.0	20.0	17.0	16.5
30	7.0	0.0	0.0	2.0	---	1.0	15.0	19.0	18.0	22.0	17.5	11.0
31	6.0	---	0.0	2.0	---	12.5	---	16.0	---	21.0	19.5	---
MONTH	11.0	4.0	1.5	0.5	2.5	4.0	8.5	14.0	14.5	20.0	19.0	16.0
YEAR	MAX	25.0	MIN	0.0	MEAN	9.5						

06284800 WHISTLE CREEK NEAR GARLAND, WY

LOCATION.--Lat 44°43'21", long 108°34'16", in NW¼NW¼NE¼ sec.30, T.55 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on right bank 300 ft (91 m) upstream from Elk-Lovell Canal, 5.6 mi (9.0 km) southeast of Garland, and 6.3 mi (10.1 km) southwest of Byron.

DRAINAGE AREA.--101 mi^2 (262 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1958 to May 1960, October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,150 ft (1,265 m), from topographic map. Prior to May 31, 1960, at different datum.

REMARKS.--Records fair except those for November to April, which are poor. Part of flow is return flow from areas irrigated by diversions from the Shoshone River.

AVERAGE DISCHARGE.--9 years (water years 1959, 1969-76), 29.1 ft^3/s (0.824 m^3/s), 21,080 acre-ft/yr (26.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,780 ft^3/s (135 m^3/s) July 3, 1975, gage height, 12.44 ft (3.792 m), from floodmarks, on basis of slope-area measurement of peak flow; minimum daily, 0.05 ft^3/s (0.001 m^3/s) Jan. 12, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 19, 1961, reached a discharge of 4,260 ft^3/s (121 m^3/s), at site 6.5 mi (10.5 km) upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 676 ft^3/s (19.1 m^3/s) June 14, gage height, 4.52 ft (1.378 m); minimum daily, 0.20 ft^3/s (0.006 m^3/s) Jan. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	6.2	1.7	.50	.80	.80	1.8	74	54	44	115	52
2	67	4.5	2.0	.30	.85	.70	1.8	56	49	47	78	57
3	52	3.0	2.1	.20	.85	.60	1.8	36	57	62	66	49
4	56	2.8	2.2	.25	.75	.70	1.6	39	56	61	76	52
5	52	2.6	2.3	.25	.50	.80	1.6	40	58	63	67	52
6	58	3.0	2.1	.30	.55	.80	1.4	44	69	62	56	56
7	56	3.2	2.0	.30	.55	.80	1.4	38	69	57	58	59
8	61	3.2	2.0	.25	.60	.80	1.6	35	62	56	61	58
9	57	3.0	1.9	.45	.65	.85	1.4	31	61	52	61	58
10	52	2.4	1.9	.55	.65	.90	1.4	41	63	47	57	61
11	52	2.4	1.8	.60	.65	1.0	1.4	38	82	45	58	56
12	56	2.8	1.5	.65	.70	.90	1.3	42	96	47	54	62
13	92	1.8	1.2	.60	.75	1.4	1.2	41	71	44	49	66
14	69	2.4	1.0	.60	.80	1.5	1.3	50	295	37	50	53
15	52	2.0	1.0	.60	.80	1.4	1.4	61	71	45	50	57
16	40	2.0	1.0	.65	.90	1.4	1.4	57	56	41	50	59
17	37	2.0	.80	.70	1.0	1.7	19	56	63	39	40	53
18	39	1.8	.70	.75	.90	2.0	22	48	69	48	46	53
19	40	1.6	.80	.70	.85	3.0	18	52	61	53	47	50
20	45	1.0	.75	.70	.80	2.9	22	52	54	53	46	46
21	46	.90	.70	.70	.80	2.8	29	42	56	48	50	49
22	46	.95	.70	.75	.85	2.8	24	45	64	49	47	54
23	62	.96	.70	.80	.90	2.8	29	56	77	50	44	54
24	22	.96	.65	.80	.95	2.8	27	54	64	44	41	53
25	16	1.4	.65	.80	1.0	2.8	27	50	58	50	38	56
26	9.5	1.4	.65	.75	1.1	2.8	32	48	49	57	36	59
27	29	1.6	.70	.70	1.2	2.8	90	50	52	49	37	73
28	8.1	1.5	.70	.75	1.1	2.6	101	50	52	48	35	57
29	7.3	1.3	.70	.80	1.0	2.2	121	54	45	48	37	57
30	5.4	1.1	.70	.80	---	2.0	92	59	46	49	47	53
31	5.4	---	.65	.80	---	1.8	---	63	---	53	46	---
TOTAL	1360.7	65.77	38.25	18.35	23.80	53.15	676.8	1502	2079	1548	1643	1674
MEAN	43.9	2.19	1.23	.59	.82	1.71	22.6	48.5	69.3	49.9	53.0	55.8
MAX	92	6.2	2.3	.80	1.2	3.0	121	74	295	63	115	73
MIN	5.4	.90	.65	.20	.50	.60	1.2	31	45	37	35	46
AC-FT	2700	130	76	36	47	105	1340	2980	4120	3070	3260	3320

CAL YR 1975 TOTAL 11186.74 MEAN 30.6 MAX 700 MIN .35 AC-FT 22190
WTR YR 1976 TOTAL 10682.82 MEAN 29.2 MAX 295 MIN .20 AC-FT 21190

06284800 WHISTLE CREEK NEAR GARLAND, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-60, 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1969 to current year.
WATER TEMPERATURES: July 1969 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 12,300 micromhos Jan. 10, 1970; minimum daily, 279 micromhos Feb. 28, 1975.
WATER TEMPERATURES: Maximum, 29.0°C July 15, 1976; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 5,910 micromhos Dec. 21, 22, 24; minimum daily, 360 micromhos June 24.
WATER TEMPERATURES: Maximum, 29.0°C July 15; minimum, 0.0°C on many days during November to March.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT 06...	1245	64	760	--	240	84	64	20	68	1.9	3.5	193
NOV 10...	1235	3.0	3800	--	850	700	190	90	740	11	7.8	183
DEC 08...	1250	A2.0	4000	--	720	370	160	79	710	11	7.4	438
JAN 12...	1030	A.65	6000	--	980	560	210	110	910	13	8.9	509
FEB 09...	1100	A.65	5500	--	1000	610	220	120	1000	13	9.7	533
MAR 10...	1140	A.90	800	--	110	0	27	9.5	130	5.5	3.7	153
APR 11...	1415	1.4	5500	20.0	810	510	160	100	870	13	9.8	366
MAY 09...	1130	37	540	15.5	170	34	43	14	64	2.2	2.8	160
JUN 14...	1330	318	590	7.0	24	0	6.5	1.8	130	12	2.8	173
JUL 12...	1400	53	480	22.5	140	34	35	12	56	2.1	2.9	125
AUG 08...	1230	59	540	20.5	170	60	47	13	50	1.7	2.5	135
SEP 05...	1320	49	640	20.5	200	72	52	16	54	1.7	3.1	151

A Daily mean discharge.

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)
OCT 06...	158	220	3.1	.4	13	488	.66	84.3	.08	--	.01	130
NOV 10...	150	2100	42	.5	8.8	3290	4.47	26.6	3.5	--	.00	220
DEC 08...	359	1800	37	.5	8.0	3030	4.12	16.4	3.2	--	.00	210
JAN 12...	417	2500	36	.5	8.8	4060	5.52	7.13	5.4	--	.00	230
FEB 09...	437	2700	53	.5	8.9	4400	5.98	7.72	6.2	.03	.00	--
MAR 10...	126	250	7.3	.4	4.0	512	.70	1.24	1.1	2.1	.01	--
APR 11...	300	2300	51	.5	3.1	3680	5.00	13.9	1.8	.04	.01	--
MAY 09...	131	160	4.9	.3	13	383	.52	38.3	.39	.29	.01	--
JUN 14...	142	150	8.0	.7	6.8	397	.54	341	1.2	.34	.00	--
JUL 12...	103	140	4.4	.2	15	329	.45	47.1	.42	.24	.05	--
AUG 08...	111	150	3.2	.3	14	347	.47	55.3	.19	.11	.00	--
SEP 05...	124	170	4.7	.3	14	389	.53	51.5	.16	.05	.00	--

06284800 WHISTLE CREEK NEAR GARLAND, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	677	2920	4960	5570	5210	3600	4730	650	550	618	546	669
2	709	3750	4960	5530	5250	3590	4960	665	550	632	533	583
3	784	3600	1080	5530	5250	3550	4890	594	550	416	513	638
4	786	3710	1080	5270	5460	3470	4990	601	550	424	509	623
5	1110	3790	2220	5270	5250	5090	4900	539	543	422	52[illegible]	578
6	788	3820	2330	5300	5290	5100	4920	545	529	536	549	582
7	779	4060	3280	4810	5400	5100	5150	539	502	535	530	656
8	789	4280	3580	4760	5770	4780	5180	549	521	525	488	589
9	717	4420	4230	4760	1240	4880	4770	586	530	555	493	603
10	782	4760	4200	4760	3470	4770	4810	752	443	548	483	605
11	771	4660	4870	4870	3800	2390	4810	578	467	550	512	603
12	776	4590	4850	5080	4100	2390	5040	529	535	580	505	644
13	896	4490	4630	5080	637	2390	5080	516	519	550	518	531
14	896	4410	4880	5620	3990	3960	5230	482	669	560	645	592
15	903	4410	5090	5310	3460	3910	5230	474	501	560	630	665
16	903	4310	5090	5510	1510	3910	5220	456	479	605	570	655
17	885	4350	5100	5180	1650	1130	5370	463	436	555	620	686
18	842	4580	5100	5600	1150	1140	644	529	534	555	618	696
19	842	4580	5000	5490	2670	2380	671	529	393	523	615	682
20	789	4890	5050	5700	2700	2380	631	530	401	522	601	642
21	791	4890	5910	5390	2760	2360	586	603	390	469	594	861
22	907	5080	5910	5410	2760	3670	984	595	449	465	598	687
23	1090	5080	5900	5140	4360	3690	530	668	445	417	650	697
24	1090	4760	5910	5250	4300	3710	535	637	360	399	654	754
25	1210	4720	5250	5210	519	4020	550	596	400	388	660	750
26	853	4650	5250	5180	503	4020	611	519	433	685	689	731
27	863	4980	5280	5190	529	4770	597	530	436	688	689	737
28	2820	4920	5400	5190	3630	4890	574	511	547	606	619	710
29	2820	4960	5420	5150	3630	4800	584	522	522	591	612	710
30	2870	4850	5500	5160	---	4650	748	533	520	569	625	733
31	3390	---	5570	5160	---	4700	---	551	---	581	664	---
MONTH	1130	4440	4620	5240	3320	3720	3120	560	490	536	583	670
YEAR	MAX	5910	MIN	360	MEAN	2370						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	6.0	2.0	0.0	2.0	0.0	4.0	17.0	22.0	18.0	20.0	16.0
2	8.0	6.0	2.0	0.0	3.0	0.0	8.0	17.0	22.0	21.0	19.0	22.0
3	10.0	7.0	2.0	0.0	1.0	0.0	12.0	15.0	21.0	25.0	20.0	21.0
4	12.0	6.0	2.0	0.0	0.0	1.0	13.0	13.0	21.0	27.0	19.0	19.0
5	10.0	6.0	1.0	1.0	0.0	1.0	16.0	12.0	21.0	26.0	18.0	13.0
6	15.0	5.0	1.0	2.0	0.0	1.0	16.0	9.0	23.0	27.0	19.0	11.0
7	9.0	5.0	1.0	[illegible]	0.0	1.0	18.0	11.0	21.0	26.0	20.0	15.0
8	8.0	4.0	1.0	0.0	0.0	2.0	18.0	17.0	22.0	27.0	16.0	11.0
9	7.0	3.0	2.0	0.0	1.0	1.0	12.0	19.0	23.0	28.0	16.0	11.0
10	10.0	1.0	2.0	0.0	1.0	1.0	17.0	18.0	18.0	27.0	18.0	14.0
11	11.0	1.0	2.0	0.0	2.0	1.0	13.0	17.0	16.0	27.0	22.0	18.0
12	10.0	3.0	1.0	1.0	2.0	1.0	9.0	16.0	16.0	27.0	15.0	10.0
13	7.0	7.0	0.0	1.0	2.0	2.0	7.0	22.0	10.0	26.0	14.0	20.0
14	6.0	9.0	0.0	1.0	2.0	3.0	19.0	19.0	7.0	28.0	15.0	17.0
15	5.0	11.0	0.0	1.0	2.0	3.0	13.0	12.0	11.0	29.0	16.0	19.0
16	5.0	11.0	0.0	1.0	1.0	3.0	9.0	16.0	13.5	27.0	17.0	12.0
17	13.0	1.0	0.0	1.0	1.0	3.0	8.0	13.0	12.0	25.0	16.0	22.0
18	6.0	1.0	0.0	1.0	2.0	3.0	8.0	15.0	17.0	19.0	23.0	17.0
19	8.0	1.0	0.0	1.0	3.0	2.0	9.0	17.0	16.0	19.0	17.0	11.0
20	9.0	1.0	0.0	1.0	2.0	1.0	9.0	13.0	17.0	20.0	16.0	18.0
21	10.0	1.0	0.0	2.0	3.0	1.0	14.0	22.0	16.0	23.0	17.0	14.0
22	6.0	2.0	0.0	2.0	3.0	2.0	13.0	13.0	17.0	22.0	20.0	12.0
23	2.0	2.0	0.0	2.0	1.0	3.0	11.0	17.0	18.0	20.0	24.0	11.0
24	2.0	2.0	0.0	1.0	1.0	3.0	8.0	11.0	13.0	21.0	16.0	13.0
25	2.0	1.0	0.0	0.0	1.0	5.0	8.0	19.0	18.0	17.0	17.0	11.0
26	4.0	1.0	1.0	0.0	2.0	4.0	7.0	20.0	20.0	19.0	18.0	12.0
27	3.0	0.0	2.0	1.0	1.0	3.0	7.0	22.0	20.0	22.0	10.0	7.0
28	5.0	0.0	1.0	3.0	0.0	1.0	7.0	16.0	18.0	26.0	12.0	10.0
29	5.0	0.0	1.0	2.0	0.0	1.0	10.0	17.0	19.0	22.5	10.0	18.0
30	8.0	0.0	1.0	1.0	---	7.0	8.0	15.0	16.0	21.0	16.0	10.0
31	7.0	---	0.0	1.0	---	4.0	---	16.0	---	19.0	14.0	---
MONTH	7.5	3.5	1.0	1.0	1.5	2.0	11.0	16.0	17.5	23.5	17.0	14.5
YEAR	MAX	29.0	MIN	0.0	MEAN	9.5						

06285100 SHOSHONE RIVER NEAR LOVELL, WY

LOCATION.--Lat 44°50'20", long 108°26'00", in NW¼NW¼ sec.16, T.56 N., R.96 W., Big Horn County, Hydrologic Unit 10080014, on right bank 30 ft (9 m) upstream from bridge on U.S. Highway 310 and 1.5 mi (2.4 km) west of Lovell.

DRAINAGE AREA.--2,350 mi^2 (6,090 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1966 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,850 ft (1,173 m), from topographic map.

REMARKS.--Records good except those for December to April, which are poor. No gage-height record Jan. 8 to Feb. 7, Mar. 19 to Apr. 25. Flow regulated by Buffalo Bill Reservoir. (See page 286.) Natural flow of stream affected by storage reservoirs, power development, diversions above station for irrigation of about 143,000 acres (579 km^2), of which about 8,000 acres (32.4 km^2) lies below station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--10 years, 1,110 ft^3/s (31.44 m^3/s), 804,200 acre-ft/yr (992 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,400 ft^3/s (379 m^3/s) July 1, 1967, gage height, 6.49 ft (1.978 m); maximum gage height, 8.09 ft (2.466 m) Feb. 3, 1972 (backwater from ice); minimum daily discharge, 195 ft^3/s (5.52 m^3/s) May 4, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,080 ft^3/s (200 m^3/s) June 14, gage height, 4.45 ft (1.356 m); minimum daily, 541 ft^3/s (15.3 m^3/s) Aug. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	684	1200	800	900	600	847	900	2450	1860	1180	1060	780
2	684	1160	991	950	600	764	900	2370	1820	1130	1450	780
3	668	1160	1130	1000	600	880	900	2240	1660	1140	1570	732
4	660	760	1040	1050	600	890	900	2100	1650	1140	1590	764
5	639	732	982	1050	900	850	900	2020	1800	1140	1520	829
6	653	708	928	700	850	880	900	2020	1940	973	1610	883
7	684	684	928	550	750	880	900	2020	2300	901	1550	955
8	804	668	919	600	716	880	900	1910	3620	856	1450	955
9	804	653	964	650	883	850	850	1860	3870	820	1370	946
10	865	646	982	650	892	973	850	1860	3910	1050	1220	847
11	764	646	973	600	892	1060	1100	1750	4030	1430	1250	856
12	764	632	964	600	955	804	2300	1690	4250	2830	1010	955
13	1100	646	937	600	982	946	2400	1610	4170	3510	946	1080
14	1160	676	812	600	973	937	2200	1600	5690	3620	928	982
15	1120	684	800	600	892	910	2100	1700	4370	3290	928	919
16	1100	684	900	600	865	919	2200	1720	4390	3000	937	892
17	1120	684	1000	700	883	1020	2200	1730	4430	2730	764	901
18	1160	676	1000	700	874	1140	2200	1570	4330	2510	716	982
19	1140	653	950	600	847	1050	2100	1560	4310	2450	724	1020
20	1160	639	950	600	883	970	2200	1480	4290	2240	740	982
21	1010	660	950	600	838	900	2650	1490	4290	2000	724	973
22	1000	660	950	600	838	900	2500	1480	4310	1760	756	796
23	1510	660	950	600	838	940	2250	1500	4210	1540	748	780
24	1310	660	900	600	838	940	2200	1620	4170	1430	676	804
25	1250	660	900	600	847	960	2200	1660	4070	1330	639	796
26	1240	660	900	600	892	920	3020	1720	4030	1340	541	847
27	1230	660	900	600	991	890	3130	1730	3910	1300	569	955
28	1110	660	900	600	910	830	3020	1760	3490	1070	604	892
29	1100	660	900	600	874	900	2730	1790	1440	919	611	883
30	1100	660	900	600	---	900	2710	1860	1250	838	724	919
31	1170	---	900	600	---	900	---	1960	---	865	756	---
TOTAL	30763	21591	29000	20900	24303	28430	56310	55830	103860	52332	30681	26685
MEAN	992	720	935	674	838	917	1877	1801	3462	1688	990	890
MAX	1510	1200	1130	1050	991	1140	3130	2450	5690	3620	1610	1080
MIN	639	632	800	550	600	764	850	1480	1250	820	541	732
AC-FT	61020	42830	57520	41460	48200	56390	111700	110700	206000	103800	60860	52930

CAL YR 1975 TOTAL 438815 MEAN 1202 MAX 6730 MIN 478 AC-FT 870400
WTR YR 1976 TOTAL 480685 MEAN 1313 MAX 5690 MIN 541 AC-FT 953400

06285100 SHOSHONE RIVER NEAR LOVELL, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1966 to current year.
WATER TEMPERATURES: October 1966 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,360 micromhos July 21, 1968; minimum daily, 238 micromhos June 26, 1974.
WATER TEMPERATURES: Maximum, 30.0°C June 6, 1969; minimum, 0.0°C on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum observed, 1,050 micromhos Nov. 9; minimum daily, 285 micromhos July 14.
WATER TEMPERATURES: Maximum 25.0°C July 6; minimum, 1.0°C on many days during November to March.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT 05...	1300	660	800	--	250	75	64	23	76	2.1	3.7	219
NOV 09...	1315	639	1050	--	370	140	99	30	88	2.0	4.7	279
DEC 08...	1400	910	940	--	280	89	76	23	78	2.0	3.8	238
JAN 11...	1400	A600	930	--	340	120	92	27	68	1.6	4.8	273
FEB 08...	1300	820	480	--	260	74	71	20	49	1.3	4.1	226
MAR 09...	1300	820	750	5.0	260	72	71	21	59	1.6	3.8	234
APR 11...	1230	A1100	630	11.5	210	47	56	16	47	1.4	3.5	193
MAY 09...	0915	1870	480	12.5	160	28	42	14	47	1.6	3.4	164
JUN 14...	1030	7000	420	8.0	86	1	23	6.9	56	2.6	2.9	104
JUL 12...	1145	2970	340	18.5	120	19	31	9.2	29	1.2	2.1	118
AUG 08...	1030	1480	600	17.0	200	57	53	16	53	1.6	2.8	172
SEP 05...	1030	829	780	16.0	250	84	66	21	71	2.0	3.6	204

A Daily mean discharge.

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)
OCT 05...	180	220	7.2	.5	12	517	.70	921	.47	--	.01	150
NOV 09...	229	310	12	.6	14	699	.95	1210	.75	--	.00	180
DEC 08...	195	230	8.1	.5	15	555	.75	1360	.63	--	.01	200
JAN 11...	224	250	11	.6	15	606	.82	982	.70	--	.02	170
FEB 08...	185	180	8.2	.5	14	461	.63	1020	.56	.20	.01	--
MAR 09...	192	200	8.1	.5	13	493	.67	1090	.37	.22	.00	--
APR 11...	158	150	5.5	.4	13	387	.53	1150	.19	.33	.01	--
MAY 09...	135	120	5.3	.3	14	329	.45	1660	.43	.17	.02	--
JUN 14...	85	120	4.5	.3	11	280	.38	5290	.98	.07	.00	--
JUL 12...	97	82	3.7	.2	15	232	.32	1860	.45	.20	.02	--
AUG 08...	141	150	6.3	.4	15	385	.52	1540	.92	.12	.01	--
SEP 05...	167	200	25	.5	14	507	.69	1130	1.1	.04	.01	--

06285100 SHOSHONE RIVER NEAR LOVELL, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
OCT											
02...	1240	11.5	684	28	52	--	--	--	--	--	--
NOV											
04...	1700	9.5	708	80	153	--	--	--	--	--	--
DEC											
03...	1230	4.0	1120	2020	6110	79	99	100	--	--	--
FEB											
12...	1500	1.0	928	284	712	--	--	--	--	--	--
MAR											
09...	1330	5.5	820	261	578	--	--	--	--	--	--
APR											
09...	1145	11.0	829	227	508	--	--	--	--	--	--
MAY											
05...	1530	8.5	1970	484	2570	--	--	--	--	--	--
JUN											
02...	1720	16.0	1760	253	1200	--	--	--	--	--	--
14...	1830	9.0	4980	6060	81500	48	69	90	96	99	100
JUL											
13...	1130	16.0	3580	650	6280	16	26	54	72	92	100
AUG											
04...	1500	19.0	1640	683	3020	--	--	--	--	--	--
SEP											
07...	1545	16.5	1000	90	243	--	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	760	784	895	781	927	709	711	508	450	485	608	709
2	766	804	892	881	729	705	718	479	448	490	603	714
3	777	845	850	787	718	705	711	480	457	495	580	708
4	773	791	813	880	718	701	727	477	473	500	572	706
5	759	964	809	894	718	703	727	475	449	505	584	686
6	766	983	779	904	718	700	718	464	446	514	551	703
7	769	1000	781	894	705	720	715	459	457	520	576	703
8	787	1010	781	899	724	737	718	480	365	522	549	693
9	826	1000	778	892	729	737	739	484	348	515	540	672
10	787	1000	895	901	724	753	726	440	327	485	565	696
11	788	1000	764	902	730	712	580	493	318	418	566	705
12	797	968	878	901	730	681	444	478	349	331	626	710
13	820	981	819	901	735	690	433	440	319	288	644	716
14	804	981	---	999	730	732	433	441	432	285	646	719
15	797	989	---	919	690	740	437	475	362	299	636	713
16	768	1000	---	958	685	740	468	465	342	324	627	717
17	744	1010	---	899	691	781	464	464	311	344	686	709
18	732	1010	---	939	683	751	440	481	315	363	685	707
19	738	991	---	946	688	751	433	498	309	364	687	717
20	728	1020	---	919	688	709	432	488	295	393	690	727
21	732	954	---	911	682	717	421	481	296	404	674	756
22	799	972	---	924	689	722	426	477	350	436	678	764
23	771	972	798	936	690	730	433	477	328	469	676	798
24	771	983	984	928	695	698	428	480	302	487	698	784
25	791	983	978	932	700	703	436	470	300	489	718	795
26	787	1000	1030	932	703	708	428	474	287	499	779	779
27	814	1030	867	919	709	703	495	461	293	540	756	763
28	809	1040	1020	934	709	721	497	461	300	555	717	771
29	798	1040	933	831	710	694	502	462	438	591	726	723
30	793	1040	910	925	---	722	513	456	461	621	696	739
31	797	---	950	831	---	711	---	452	---	610	701	---
MONTH	780	972	---	903	715	719	545	472	364	456	646	727
YEAR	MAX	1040	MIN	285	MEAN	676						

06285100 SHOSHONE RIVER NEAR LOVELL, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	9.0	2.0	1.0	5.0	1.0	10.0	12.0	16.0	21.0	20.0	16.0
2	15.0	11.0	2.0	1.0	4.0	2.0	8.0	12.0	16.0	21.0	17.0	16.0
3	13.0	9.0	6.0	1.0	4.0	2.0	9.0	13.0	18.0	22.0	20.0	16.0
4	14.0	9.0	6.0	1.0	3.0	2.0	9.0	12.0	18.0	23.0	18.0	15.0
5	15.0	9.0	5.0	1.0	1.0	2.0	12.0	11.0	17.0	24.0	18.0	15.0
6	15.0	9.0	4.0	1.0	1.0	3.0	12.0	13.0	16.0	25.0	21.0	15.0
7	14.0	9.0	5.0	1.0	1.0	4.0	12.0	13.0	18.0	23.0	20.0	12.0
8	10.0	8.0	5.0	1.0	2.0	6.0	13.0	15.0	15.0	23.0	20.0	12.0
9	12.0	7.0	5.0	1.0	2.0	6.0	12.0	15.0	16.0	23.0	20.0	12.0
10	11.0	5.0	6.0	2.0	3.0	7.0	11.0	15.0	15.0	23.0	20.0	12.0
11	13.0	5.0	4.0	1.0	3.0	4.0	13.0	12.0	13.0	22.0	19.0	12.0
12	11.0	2.0	3.0	2.0	3.0	2.0	12.0	14.0	13.0	21.0	20.0	12.0
13	9.0	5.0	2.0	1.0	5.0	2.0	11.0	15.0	13.0	21.0	20.0	13.0
14	7.0	5.0	---	1.0	5.0	5.0	12.0	17.0	8.0	19.0	21.0	12.0
15	9.0	5.0	---	2.0	2.0	6.0	12.0	12.0	13.0	18.0	20.0	12.0
16	11.0	8.0	---	2.0	2.0	6.0	9.0	14.0	11.0	19.0	18.0	15.0
17	10.0	6.0	---	4.0	3.0	9.0	8.0	16.0	13.0	19.0	18.0	15.0
18	11.0	4.0	---	4.0	3.0	9.0	10.0	16.0	14.0	21.0	18.0	13.0
19	12.0	3.0	---	4.0	3.0	6.0	10.0	17.0	15.0	20.0	18.0	10.0
20	11.0	1.0	---	4.0	3.0	5.0	10.0	17.0	14.0	20.0	17.0	15.0
21	10.0	1.0	---	3.0	3.0	6.0	11.0	17.0	16.0	20.0	17.0	13.0
22	7.0	4.0	---	3.0	3.0	7.0	12.0	14.0	15.0	20.0	17.0	13.0
23	5.0	3.0	1.0	3.0	3.0	6.0	10.0	16.0	15.0	22.0	17.0	13.0
24	6.0	3.0	4.0	3.0	3.0	7.0	11.0	16.0	16.0	22.0	17.0	13.0
25	6.0	1.0	4.0	4.0	3.0	9.0	9.0	16.0	14.0	22.0	17.0	12.0
26	8.0	1.0	4.0	4.0	3.0	8.0	6.0	17.0	14.0	21.0	12.5	10.0
27	7.0	1.0	2.0	3.0	3.0	7.0	6.0	17.0	16.0	21.0	11.5	11.0
28	7.0	1.0	3.0	3.0	3.0	7.0	6.0	17.0	16.0	22.0	15.0	11.0
29	8.0	1.0	2.0	3.0	3.0	7.0	8.0	15.0	20.0	21.0	14.0	12.0
30	9.0	1.0	1.0	3.0	---	7.0	11.0	15.0	21.0	21.0	14.0	15.0
31	11.0	---	1.0	5.0	---	9.0	---	16.0	---	21.0	16.0	---
MONTH	10.5	5.0	---	2.5	3.0	5.5	10.0	14.5	15.0	21.5	18.0	13.0
YEAR	MAX	25.0	MIN	1.0	MEAN	10.5						

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAVER, WY

LOCATION.--Lat 44°53'08", long 108°33'01", in NE¼NE¼NW¼ sec.34, T.57 N., R.97 W., Big Horn County, Hydrologic Unit 10080014, on left bank 300 ft (91 m) downstream from Polecat Creek, 800 ft (244 m) upstream from Sidon Canal crossing, and 2.4 mi (3.9 km) east of Deaver.

DRAINAGE AREA.--341 mi² (883 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1958 to May 1960, October 1968 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,020 ft (1,225 m), from topographic map.

REMARKS.--Records fair. Flow is mostly return flow from land irrigated by canals diverting water from Shoshone River.

AVERAGE DISCHARGE.--9 years (water years 1959, 1969-76), 67.1 ft³/s (1.900 m³/s), 48,610 acre-ft/yr (59.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,250 ft³/s (63.7 m³/s) June 8, 1958, gage height, 9.22 ft (2.810 m), from floodmark, on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft³/s (0.014 m³/s) Feb. 2-6, Feb. 21 to Mar. 5, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 344 ft³/s (9.74 m³/s) Aug. 3, gage height, 4.57 ft (1.393 m); minimum daily, 13 ft³/s (0.37 m³/s) Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	164	38	22	15	16	29	33	67	77	66	69	102
2	165	38	23	15	16	20	31	75	73	68	136	98
3	165	38	24	15	15	22	31	84	71	76	212	96
4	164	36	28	15	13	22	28	82	69	71	180	98
5	162	36	29	15	16	21	28	107	67	67	174	101
6	162	36	27	15	16	21	28	116	71	63	167	107
7	160	36	27	15	16	20	28	108	74	63	176	110
8	166	34	28	15	15	18	29	93	73	67	178	113
9	170	34	27	15	16	20	30	84	75	63	162	128
10	174	35	27	15	16	25	32	90	74	63	154	133
11	166	33	27	15	16	26	30	99	83	65	155	131
12	168	27	26	15	18	16	29	117	103	68	146	134
13	199	31	21	15	20	28	28	126	103	67	133	150
14	192	31	16	14	21	31	74	104	173	65	135	148
15	194	31	23	14	21	30	114	90	157	64	148	149
16	190	32	22	14	25	29	105	99	175	61	140	154
17	179	34	19	15	29	31	115	87	186	59	130	161
18	162	32	18	15	28	37	113	74	174	61	131	173
19	150	25	17	15	23	48	110	73	161	61	131	164
20	148	26	16	15	23	45	97	68	148	62	121	159
21	155	28	15	15	21	44	101	67	174	64	115	162
22	169	26	15	16	23	38	92	65	162	59	120	162
23	167	27	15	16	25	37	82	73	154	56	122	162
24	81	24	14	16	27	32	84	72	136	64	119	156
25	45	22	14	16	27	35	88	65	128	58	112	140
26	43	23	14	15	30	35	98	59	118	59	106	139
27	42	25	15	16	38	35	74	61	113	61	114	144
28	41	22	16	16	38	35	55	62	95	67	114	155
29	40	22	16	16	33	32	41	66	82	6	121	154
30	40	22	16	16	---	32	57	64	70	69	126	152
31	39	---	15	16	---	32	---	67	---	71	116	---
TOTAL	4262	904	632	471	641	926	1885	2564	3419	1997	4263	4135
MEAN	137	30.1	20.4	15.2	22.1	29.9	62.8	82.7	114	64.4	138	138
MAX	199	38	29	16	38	48	115	126	186	76	212	173
MIN	39	22	14	14	13	16	28	59	67	56	69	96
AC-FT	8450	1790	1250	934	1270	1840	3740	5090	6780	3960	8460	8200

CAL YR 1975 TOTAL 28036 MEAN 76.8 MAX 322 MIN 11 AC-FT 55610
WTR YR 1976 TOTAL 26099 MEAN 71.3 MAX 212 MIN 13 AC-FT 51770

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAVER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958-60, 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: April 1969 to current year.
WATER TEMPERATURES: July 1969 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,650 micromhos Apr. 26, 1973; minimum daily, 819 micromhos May 4, 1975.
WATER TEMPERATURES: Maximum, 28.5°C July 17, 1974; minimum, 0.0°C on many days during winter period in most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 6,380 micromhos Apr. 27; minimum daily, 874 micromhos Apr. 19.
WATER TEMPERATURES: Maximum, 28.0°C July 7; minimum, 0.5°C on several days during January and February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT 05...	1330	166	1180	--	400	210	96	39	110	2.4	4.0	231
NOV 10...	1100	33	2700	--	1000	700	230	110	320	4.3	5.3	394
DEC 08...	1100	27	3300	--	1000	680	210	120	380	5.2	6.1	412
JAN 11...	1430	15	3200	--	1100	760	230	130	410	5.4	6.3	427
FEB 08...	1400	15	2900	--	1000	650	210	120	340	4.6	7.2	453
MAR 09...	1440	23	3000	2.5	890	570	190	100	340	5.0	5.6	386
APR 11...	1310	30	2800	14.0	810	550	160	100	280	4.3	4.8	317
MAY 09...	1010	88	1150	12.5	420	230	100	42	130	2.8	4.2	234
JUN 14...	1145	197	1450	8.0	420	260	96	43	190	4.1	4.5	191
JUL 12...	1215	70	1370	21.5	430	250	97	46	140	2.9	4.3	223
AUG 08...	1100	169	1180	17.0	430	260	110	38	110	2.3	3.6	203
SEP 05...	1115	120	1600	15.5	540	340	130	52	150	2.8	4.8	243

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)
OCT 05...	189	430	7.5	.4	13	816	1.11	366	.41	--	.02	200
NOV 10...	323	1300	24	.7	11	2200	2.99	196	1.7	--	.00	350
DEC 08...	338	1400	25	.8	12	2370	3.22	173	2.0	--	.00	420
JAN 11...	350	1600	24	.8	11	2630	3.58	107	2.5	--	.00	370
FEB 08...	372	1300	22	.7	13	2250	3.06	91.1	2.1	.06	.01	--
MAR 09...	317	1300	21	.7	9.9	2170	2.95	135	1.9	.16	.00	--
APR 11...	260	1100	29	.6	7.1	1840	2.50	149	.76	.09	.01	--
MAY 09...	192	490	11	.5	12	909	1.24	216	1.0	.28	.03	--
JUN 14...	157	620	18	.4	12	1090	1.48	580	1.7	.05	.00	--
JUL 12...	183	540	14	.4	14	970	1.32	183	.90	.16	.05	--
AUG 08...	167	450	8.9	.5	15	839	1.14	383	.69	.23	.01	--
SEP 05...	199	650	12	.6	14	1140	1.55	369	.96	.10	.04	--

06285400 SAGE CREEK AT SIDON CANAL, NEAR DEAVER, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976 ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1170	2570	3020	3650	3010	2320	2300	1640	1510	1540	1500	1510
2	1180	2570	3080	3370	2920	3060	2320	1310	1510	1490	2050	1580
3	1180	2550	3080	3350	3230	2670	2760	1350	1540	1410	1480	1540
4	1250	2660	3240	3350	3020	2520	2260	1370	1500	1470	1290	1540
5	1210	2710	3240	3290	2890	2570	2340	1300	1440	1550	1260	1530
6	1230	2710	3150	3300	2900	2410	2360	1110	1530	1470	1160	1500
7	1230	2710	3150	3270	2870	2640	2290	1190	1560	1510	1220	1540
8	1360	2730	3150	3250	2870	2750	2330	1420	1620	1490	1130	1480
9	1240	2700	3280	3250	2810	2980	2370	1500	1550	1380	1120	1380
10	1280	2760	3400	3240	2760	2730	2450	1270	1500	1420	1140	1410
11	1270	2600	3430	3250	2700	2620	2450	1250	1540	1430	1220	1370
12	1280	2700	3450	3240	2710	2760	2420	1150	1800	1400	1320	1390
13	1670	2490	3450	3240	2720	2630	2370	1050	1450	1410	1250	1430
14	1480	2550	3510	3400	2540	2300	1700	1250	1380	1500	1120	1390
15	1340	2540	3340	3240	2740	2590	916	1260	1370	1420	1180	1290
16	1300	2590	3130	3180	2230	2520	961	1100	1160	1420	1200	1270
17	1270	2550	3290	3250	2170	2480	1410	1270	1210	1470	1250	1210
18	1280	2980	3190	3280	2280	2490	1080	1460	1140	1460	1200	1240
19	1320	3090	3320	3250	2440	1840	874	1480	1100	1540	1230	1230
20	1240	3100	3340	3270	2300	1800	880	1520	1140	1530	14[illegible]	1250
21	1330	2880	3300	3290	2240	2270	1010	1550	1220	1540	1320	1190
22	1430	2790	3280	3290	2540	2250	1090	1580	1180	1580	1370	1290
23	1360	2700	3310	3220	2400	2150	1130	1600	1180	1630	1400	1170
24	1550	2700	3330	3220	2320	2020	1140	1490	1170	1420	1370	1360
25	2490	3090	3280	3310	2460	2140	1090	1650	1160	1470	1440	1330
26	2450	3120	3310	3330	2460	1950	1160	1620	1140	1540	1410	1330
27	2540	2860	3250	3130	2490	2000	6380	1670	1160	1510	1350	1270
28	2550	3160	3310	3100	2240	2110	5920	1640	1320	1380	1350	1260
29	2550	3240	3360	3060	2300	2570	1940	1620	1270	1380	1320	1250
30	2490	3030	3280	3030	---	2520	2110	1580	1450	1450	1300	1250
31	2620	---	3310	3010	---	1910	---	1530	---	1490	1480	---
MONTH	1590	2780	3280	3260	2610	2410	2060	1410	1360	1470	1320	1360
YEAR	MAX	6380	MIN	874	MEAN	2070						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976 ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	5.0	2.0	1.0	1.0	1.0	8.0	16.0	21.0	18.0	20.0	21.0
2	15.0	5.0	3.0	3.0	1.0	1.0	7.0	15.0	15.0	15.0	20.0	21.0
3	11.0	10.0	2.0	3.0	1.0	1.0	1.0	16.0	13.0	25.0	22.0	20.0
4	15.0	10.0	2.0	3.0	1.0	1.0	12.0	11.0	14.0	20.0	22.0	15.0
5	15.5	9.0	3.0	3.0	1.0	1.0	12.0	10.0	21.0	25.0	23.0	21.0
6	14.0	7.0	3.0	3.0	1.0	1.0	12.0	10.0	20.0	26.0	17.0	17.0
7	13.0	9.0	2.0	3.0	1.0	1.0	14.0	17.0	24.0	28.0	25.0	17.0
8	10.0	10.0	4.0	3.0	1.0	1.0	14.0	17.0	21.0	27.0	21.0	11.0
9	11.0	4.0	4.0	3.0	1.0	1.0	12.0	11.0	15.0	26.0	18.0	17.0
10	14.0	4.5	2.0	3.0	1.0	3.0	7.0	12.0	15.0	27.0	17.0	17.0
11	14.0	3.0	2.0	3.0	1.0	1.0	12.0	13.0	15.0	19.0	22.0	17.0
12	11.0	2.0	3.0	3.0	1.0	1.0	14.0	7.0	13.0	24.0	22.0	14.0
13	9.0	3.0	2.0	3.0	0.5	1.0	12.0	9.0	13.0	16.0	22.0	19.0
14	8.0	5.5	2.0	1.0	1.0	1.0	14.0	10.0	13.0	17.0	16.0	17.0
15	10.0	4.0	2.0	1.0	1.0	3.0	7.0	12.0	13.0	15.0	20.0	13.0
16	8.0	5.0	2.0	1.0	1.0	1.0	8.0	10.0	15.0	17.0	22.0	18.0
17	8.0	6.0	2.0	1.0	1.0	1.0	5.0	9.0	13.0	17.0	23.0	18.0
18	9.0	1.0	2.0	1.0	1.0	1.5	12.0	12.0	13.0	19.0	23.0	14.0
19	8.0	2.0	2.0	1.0	1.5	4.0	11.0	13.0	22.0	18.0	23.0	10.0
20	9.0	3.0	3.0	1.0	1.0	4.0	6.0	12.0	21.0	25.0	23.0	16.0
21	5.0	1.0	3.0	1.0	1.0	1.0	6.0	12.0	20.0	19.0	17.0	17.0
22	8.0	2.0	3.0	1.0	1.5	5.0	12.0	13.0	13.0	18.0	22.0	16.0
23	5.0	3.0	3.0	1.0	1.0	2.0	7.0	12.0	13.0	18.0	17.0	16.0
24	3.0	3.0	3.0	1.0	1.0	3.0	14.0	11.0	12.0	25.0	23.0	17.0
25	3.0	2.0	2.0	0.5	1.0	7.0	10.0	17.0	13.0	18.0	24.0	17.0
26	6.0	2.0	3.0	0.5	1.0	5.0	4.0	10.0	10.0	18.0	20.0	15.0
27	3.0	2.0	3.0	0.5	1.0	5.0	9.0	11.0	14.0	18.0	18.0	16.0
28	3.0	1.0	2.5	0.5	1.0	6.0	6.0	12.0	22.0	26.0	20.0	16.0
29	6.0	2.0	3.0	1.0	1.0	1.0	13.0	13.0	15.0	17.0	20.0	16.0
30	4.5	2.0	3.0	1.0	---	1.0	6.0	21.0	17.0	23.0	19.0	16.0
31	7.0	---	2.0	1.0	---	8.0	---	18.0	---	19.0	19.0	---
MONTH	9.0	4.5	2.5	1.5	1.0	2.5	9.5	12.5	16.0	20.5	20.5	16.5
YEAR	MAX	28.0	MIN	0.5	MEAN	10.0						

06286200 SHOSHONE RIVER AT KANE, WY

LOCATION.--Lat 44°51'31", long 108°19'52", in NE¼SE¼SE¼ sec.6, T.56 N., R.95 W., Big Horn County, Hydrologic Unit/ 10080014, at bridge on county road, 3.4 mi (5.5 km) northeast of Lovell, 6.5 mi (10.5 km) west of Kane, 6.6 mi (10.6 km) upstream from high-water line of Bighorn Lake at elevation 3,640 ft (1,109 m), and 7.8 mi (12.6 km) upstream from former discharge station.

DRAINAGE AREA.--2,989 mi² (7,742 km²), at former discharge station.

PERIOD OF RECORD.--September 1976.

WATER-QUALITY DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	POLYCHLORINATED NAPHTHALENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)
SEP												
23...	1030	.0	0	.00	.00	.0	.0	0	.00	.0	.00	.0

DATE	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)
SEP												
23...	.00	.0	.00	.00	.0	.00	.0	.00	.00	.0	.00	.0

DATE	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL METHYL TRITHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL TOXAPHENE (UG/L)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
SEP												
23...	.00	.0	.00	.00	.00	.00	0	0	.00	.04	.00	.00

06286258 BIG COULEE NEAR LOVELL, WY

LOCATION.--Lat 44°58'04", long 108°17'24", in SE¼NE¼NE¼ sec.34, T.58 N., R.95 W., Big Horn County, Hydrologic Unit 10080010, on right bank 300 ft (91 m) downstream from county road, 0.6 mi (1.0 km) upstream from mouth, and 10 mi (16 km) northeast of Lovell.

DRAINAGE AREA.--30.1 mi² (78.0 km²). Area at site used Aug. 31, 1972, to Apr. 23, 1974, 28.8 mi² (74.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,750 ft (1,143 m), from topographic map. Aug. 31, 1972, to Apr. 23, 1974, water-stage recorder at site 0.7 mi (1.1 km) upstream at different datum.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--6 years, 0.102 ft³/s (2.89 dm³/s), 74 acre-ft/yr (91,200 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,840 ft³/s (52.1 m³/s) July 5, 1975, gage height 5.54 ft (1.689 m), from rating curve extended above 17 ft³/s (0.48 m³/s) on basis of slope-area measurements at gage heights 3.60 ft (1.097 m), 4.66 ft (1.420 m), and 5.54 ft (1.689 m); no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 10 ft³/s (0.28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 11	1500	*1020	28.9	a4.6	1.40
Aug. 2	1830	44	1.25	2.43	.741
Aug. 30	1800	45	1.27	2.44	.744

a From floodmarks.

No flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0				0		0	0
2					0				0		2.9	0
3					0				0		0	0
4					0				0		0	0
5					0				0		0	0
6					0				0		0	0
7					0				0		0	0
8					0				0		0	0
9					.10				0		0	0
10					.20				0		0	0
11					.10				30		0	0
12					.81				0		0	0
13					.50				0		0	0
14					.20				0		0	0
15					0				0		0	0
16					0				0		0	0
17					0				0		0	0
18					0				0		0	.33
19					0				0		0	0
20					0				0		0	0
21					0				0		0	0
22					0				0		0	0
23					0				0		0	0
24					0				0		0	0
25					0				0		0	0
26					0				0		0	.08
27					0				0		0	0
28					0				0		0	0
29					0				0		0	0
30					---				0		.80	0
31		---			---		---		---		0	---
TOTAL	0	0	0	0	1.91	0	0	0	30	0	3.70	.41
MEAN	0	0	0	0	.066	0	0	0	1.00	0	.12	.014
MAX	0	0	0	0	.81	0	0	0	30	0	2.9	.33
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	3.8	0	0	0	60	0	7.3	.8

CAL YR 1975 TOTAL 82.95 MEAN .23 MAX 73 MIN 0 AC-FT 165
WTR YR 1976 TOTAL 36.02 MEAN .098 MAX 30 MIN 0 AC-FT 71

06286258 BIG COULEE NEAR LOVELL, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: April 1970 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, not determined; minimum daily mean, no flow for many days each year.
SEDIMENT DISCHARGE: Maximum daily, 57,100 tons (51,800 tonnes) July 5, 1975; minimum daily, 0 tons on many days each year.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily mean, not determined; minimum daily mean, no flow for many days during year.
SEDIMENT DISCHARGE: Maximum daily, 8,930 tons (8,100 tonnes) June 11; minimum daily, 0 tons on many days during year.

MONTHLY AND ANNUAL SUMMARY OF WATER AND SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MONTH	DISCHARGE (CFS-DAYS)	RUNOFF (ACRE-FEET)	SUSPENDED SEDIMENT DISCHARGE (TONS)	DAILY DISCHARGE (TONS) MEAN	DAILY DISCHARGE (TONS) MAXIMUM	DAILY DISCHARGE (TONS) MINIMUM	CONCENTRATION (MG/L) WEIGHTED MEAN	CONCENTRATION (MG/L) MAXIMUM OBSERVED
OCTOBER 1975...	0	0	0	0	0	0		
NOVEMBER.......	0	0	0	0	0	0		
DECEMBER.......	0	0	0	0	0	0		
JANUARY 1976...	0	0	0	0	0	0		
FEBRUARY.......	1.91	3.8	5.44	.19	4.6	0		
MARCH..........	0	0	0	0	0	0		
APRIL..........	0	0	0	0	0	0		
MAY............	0	0	0	0	0	0		
JUNE...........	30	60	8,930	298	8,930	0		
JULY...........	0	0	0	0	0	0		
AUGUST.........	3.70	7.3	593	19	507	0		
SEPTEMBER......	.41	.81	8.1	.27	4.6	0		
WATER YEAR...	36.02	71.91	9,536.54	26	8,930	0		

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM
FEB 12...	1715	--	A.81	7530	16	28	46	78	94	100
JUN 11...	1710	14.5	9.9	21200	567	44	86	9.	100	--

A Daily mean discharge.

06286400 BIGHORN LAKE NEAR ST. XAVIER, MT

LOCATION.--Lat 45°18'27", long 107°57'26", in SW¼SE¼ sec.18, T.6 S., R.31 E., Big Horn County, Hydrologic Unit 10080010, in block 13 of Yellowtail Dam on Bighorn River, 1.3 mi (2.1 km) upstream from Grapevine Creek, 15.5 mi (24.9 km) southeast of St. Xavier, and at mile 81.0 (130.3 km).

DRAINAGE AREA.--19,626 mi^2 (50,831 km^2).

PERIOD OF RECORD.--November 1965 to current year (monthend contents only). Prior to October 1969, published as "Yellowtail Reservoir."

GAGE.--Water-stage recorder in powerhouse control room. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by thin concrete-arch dam; construction began in 1961; completed in 1967. Storage began Nov. 3, 1965. Usable capacity, 1,356,000 acre-ft (1.67 km^3) between elevation 3,296.50 ft (1,004.773 m), river outlet invert, and 3,657.00 ft (1,114.654 m), top of flood control. Elevation of spillway crest, 3,593.00 ft (1,095.146 m). Normal maximum operating level, 1,097,000 acre-ft (1.35 km^3), elevation, 3,640.00 ft (1,109.472 m). Minimum operating level, 483,400 acre-ft (596 hm^3), elevation, 3,547.00 ft (1,081.126 m). Dead storage, 18,970 acre-ft (23.4 hm^3) below elevation 3,296.50 ft (1,004.773 m). Figures given herein represent usable contents. Water is used for power production, flood control, irrigation, and recreation.

COOPERATION.--Elevations and capacity table furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,346,000 acre-ft (1.66 km^3) July 6, 1967, elevation, 3,656.43 ft (1,114.480 m); minimum since first filling, 660,700 acre-ft (815 hm^3) Mar. 11, 1970, elevation, 3,584.45 ft (1,092.540 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,044,000 acre-ft (1.29 km^3) Oct. 31, Nov. 1, 5, 6; maximum elevation, 3,635.61 ft (1,108.134 m) Nov. 6; minimum contents, 742,000 acre-ft (915 hm^3) May 20, elevation, 3,598.35 ft (1,096.777 m).

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	3,633.19	1,018,000	-
Oct. 31	3,635.59	1,044,000	+26,000
Nov. 30	3,628.15	966,900	-77,100
Dec 31	3,622.29	914,800	-52,100
CAL YR 1975	-	-	+5,600
Jan. 31	3,616.35	868,400	-46,400
Feb. 29	3,612.57	835,900	-32,500
Mar. 31	3,604.82	784,400	-51,500
Apr. 30	3,602.89	771,400	-13,000
May 31	3,601.77	764,000	-7,400
June 30	3,624.51	933,900	+169,900
July 31	3,626.61	952,600	+18,700
Aug. 31	3,630.07	985,400	+32,800
Sept. 30	3,633.28	1,019,000	+33,600
WTR YR 1976	-	-	+1,000

06287000 BIGHORN RIVER NEAR ST. XAVIER, MT

LOCATION.--Lat 45°19'00", long 107°55'05", in NW¼NE¼ sec.16, T.6 S., R.31 E., Big Horn County, Hydrologic Unit 10080015, on right bank 800 ft (244 m) downstream from Yellowtail afterbay dam, 1,500 ft (460 m) downstream from Lime Kiln Creek, and 14 mi (23 km) southwest of St. Xavier.

DRAINAGE AREA.--19,667 mi^2 (50,938 km^2). Area at site used prior to Apr. 16, 1963, 19,626 mi^2 (50,831 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1934 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,100 ft (945 m) above mean sea level (levels by Bureau of Reclamation). Prior to Apr. 16, 1963, and June 13, 1964, to Mar. 31, 1965, water-stage recorder at site 1.2 mi (1.9 km) upstream at different datum. Apr. 16, 1963, to June 12, 1964, water-stage recorder at present site at present datum. Apr. 1, 1965, to July 31, 1966, water-stage recorder at site 1,300 ft (400 m) downstream at present datum.

REMARKS.--Records good. Figures of discharge given herein are sum of river flow and flow of Bighorn Canal. Some regulation by 14 reservoirs in Wyoming with combined capacity of 1,400,000 acre-ft (1,726 hm^3) and complete regulation by Bighorn Lake (see page 132) since Nov. 3, 1965. Diversions for irrigation of about 375,000 acres (1,520 km^2) above station.

AVERAGE DISCHARGE.--42 years, 3,618 ft^3/s (102.5 m^3/s), 2,621,000 acre-ft/yr (3.23 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,400 ft^3/s (1,060 m^3/s) June 16, 1935; minimum observed, 49 ft^3/s (1.39 m^3/s) Mar. 29, 1966, result of discharge measurement (dam closure); minimum daily, 112 ft^3/s (3.17 m^3/s) Apr. 2, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,910 ft^3/s (224 m^3/s) June 2, gage height, 62.93 ft (19.181 m); minimum daily, 1,430 ft^3/s (40.5 m^3/s) Apr. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3240	3520	4480	4430	4100	4480	4880	5320	6040	5870	2690	2530
2	3330	4080	4480	4430	4100	4470	4880	5300	6080	4370	2680	2550
3	3310	4080	4470	4430	4100	4470	4880	5320	6080	3330	2680	2540
4	3340	4050	4480	4450	4100	4450	4700	5330	5490	3350	2670	2530
5	3320	2540	4060	4450	4100	4610	1730	5300	5480	3540	2650	2530
6	3330	2430	3440	3910	4140	4880	1430	5300	5960	4610	2650	2550
7	3320	3860	3450	3920	4320	4880	2820	5300	5940	4950	2650	2650
8	3310	4680	3580	3910	4310	4880	4220	5300	5920	4590	2660	2640
9	3290	4680	3580	3910	4400	4880	5240	5280	5930	4640	2660	2640
10	3290	4550	3080	4020	4450	4900	5200	5280	5940	4700	2660	2660
11	3290	4480	2750	4080	4410	4870	5260	5330	5970	4720	2660	2640
12	3290	4480	3310	4080	4450	4870	5260	5330	5960	4730	2660	2640
13	3280	4560	3610	4080	4520	4870	5260	5330	5970	4750	2690	2700
14	3280	4520	3630	4100	4500	4870	5240	5310	5820	4760	2700	2660
15	3290	4050	4110	4100	4400	4880	5260	5310	5900	4400	2700	2770
16	3120	3870	4410	4100	4400	4850	5260	5290	5910	3590	2690	2810
17	3080	4310	4410	4100	4500	4870	5240	5240	5880	3600	2720	2810
18	3090	4340	4410	4100	4500	4850	5220	5100	5910	3600	2660	2840
19	3090	4470	4410	4100	4500	4850	5220	4780	5910	3920	2540	2540
20	3090	4450	4410	4100	4500	4850	5240	4780	5910	3910	2520	2260
21	3090	4450	4410	4100	4500	4830	5220	4780	5910	3640	2530	2380
22	3090	4450	4310	4080	4500	4830	5240	4770	5840	3640	2520	2650
23	3090	4470	4160	4080	4500	4830	5200	4770	5810	3190	2520	2570
24	3090	4470	4470	4100	4480	4830	5220	5050	5790	2730	2600	2230
25	3090	4470	4450	4080	4470	4870	5220	5370	5810	2730	2670	2680
26	3100	4470	4450	4080	4470	4900	5200	5410	5790	2720	2700	2660
27	3100	4470	4450	4080	4470	4900	5320	5600	5770	2710	2600	2640
28	3100	4470	4450	4100	4470	4900	5320	5950	5770	2710	2570	2640
29	3100	4480	4450	4100	4480	4900	5320	5970	5800	2700	2550	2660
30	3100	4480	4450	4100	---	4880	5300	5990	5840	2700	2560	2710
31	1470	---	4450	4100	---	4880	---	5990	---	2690	2540	---
TOTAL	97400	126680	127060	127800	127140	149080	145000	164480	176130	118090	81550	78310
MEAN	3142	4223	4099	4123	4384	4809	4833	5306	5871	3809	2631	2610
MAX	3340	4680	4480	4450	4520	4900	5320	5990	6080	5870	2720	2840
MIN	1470	2430	2750	3910	4100	4450	1430	4770	5480	2690	2520	2230
AC-FT	193200	251300	252000	253500	252200	295700	287600	326200	349400	234200	161800	155300

CAL YR 1975 TOTAL 1698750 MEAN 4654 MAX 9230 MIN 1470 AC-FT 3369000
WTR YR 1976 TOTAL 1518720 MEAN 4150 MAX 6080 MIN 1430 AC-FT 3012000

06287000 BIGHORN RIVER NEAR ST. XAVIER, MT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1966 to current year.
WATER TEMPERATURES: December 1962 to current year.

INSTRUMENTATION.--Temperature recorder December 1962 to September 1974.

REMARKS.--Flow regulated since Nov. 3, 1965, by Bighorn Lake.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,180 micromhos on several days during 1966-67; minimum daily, 492 micromhos Aug. 28, 1974.
WATER TEMPERATURES: Maximum, 24.5°C on several days during 1963-65; minimum, 0.0°C on many days during winter periods most years prior to 1966; minimum, 1.0°C at times during winter months since regulation by Bighorn Lake.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 922 micromhos May 21; minimum daily, 544 micromhos Sept. 26, 27.
WATER TEMPERATURES: Maximum, 17.0°C Oct. 1; minimum, 2.0°C on several days during February and March.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT 31...	1430	376	798	12.5	260	100	68	22	65	1.8	3.3	190
NOV 13...	1145	4560	770	9.5	250	95	65	21	67	1.8	3.4	187
DEC 18...	1435	4440	779	7.0	260	110	69	22	66	1.8	3.7	188
JAN 13...	1135	4080	757	3.5	260	110	68	22	65	1.8	3.7	188
FEB 12...	0950	4380	795	2.0	260	100	66	23	65	1.8	3.5	192
MAR 18...	1135	4850	835	3.5	290	120	75	24	68	1.8	3.5	206
APR 06...	1300	1440	873	7.5	300	120	77	25	75	1.9	3.6	215
MAY 03...	1100	5340	886	5.0	310	130	76	28	75	1.9	4.0	217
JUN 10...	1730	5420	--	10.5	290	--	75	25	71	1.8	3.6	--
28...	1620	5510	757	15.0	240	93	65	20	68	1.9	3.2	185
AUG 05...	1300	2330	623	16.0	220	89	57	18	57	1.7	2.9	155
SEP 09...	1320	2270	591	16.0	200	76	52	16	51	1.6	2.8	146

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
OCT 31...	230	9.4	.4	9.3	503	.68	511	.32	.06	.05	10	30
NOV 13...	230	9.4	.3	9.3	499	.68	6140	.29	.04	.01	0	0
DEC 18...	230	8.3	.3	9.3	503	.68	6030	.34	.01	.00	20	0
JAN 13...	220	8.4	.4	9.1	491	.67	5410	.36	.01	.00	20	5
FEB 12...	240	8.6	.4	9.0	512	.70	6060	.48	.01	.00	0	0
MAR 18...	250	9.2	.4	9.9	544	.74	7120	.55	.00	.00	20	30
APR 06...	260	11	.4	10	570	.78	2220	.48	.00	.00	0	20
MAY 03...	280	13	.4	9.2	594	.81	8560	.39	.00	.00	20	10
JUN 10...	250	10	.4	9.5	--	--	--	--	.06	--	0	0
28...	220	9.4	.5	8.9	488	.66	7260	.36	.00	.02	30	10
AUG 05...	190	7.2	.3	10	422	.57	2650	.58	--	.03	100	10
SEP 09...	180	6.4	.3	11	394	.54	2420	.55	.02	.03	30	10

06287000 BIGHORN RIVER NEAR ST. XAVIER, MT--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	752	737	721	790	710	819	841	908	808	715	---	597
2	753	756	731	771	740	830	848	908	---	720	599	589
3	758	751	722	784	739	832	849	912	871	696	618	585
4	760	761	727	757	765	835	848	919	858	707	590	605
5	759	772	---	---	769	839	854	912	800	701	599	595
6	768	768	755	750	779	832	861	911	854	679	618	588
7	770	770	779	---	763	832	850	919	850	681	592	588
8	779	---	795	787	746	824	847	---	841	683	600	584
9	768	799	768	759	749	824	842	912	840	674	599	579
10	763	801	750	742	751	828	842	915	831	678	605	586
11	765	791	809	723	751	829	848	910	830	656	592	574
12	769	782	831	726	757	829	850	916	830	644	597	579
13	---	731	---	730	751	811	851	919	822	652	593	577
14	769	753	839	730	---	818	851	919	806	643	584	572
15	741	770	---	719	757	830	854	---	---	643	582	571
16	734	777	---	721	761	812	851	919	813	649	603	566
17	744	795	809	722	761	810	860	910	801	647	589	569
18	751	781	770	722	763	805	866	917	---	639	579	564
19	755	768	769	729	768	811	866	920	800	636	599	552
20	749	786	767	728	778	813	865	919	801	627	---	557
21	751	791	751	728	788	817	865	922	787	638	588	559
22	762	778	779	729	771	819	868	919	770	629	581	562
23	755	773	790	728	771	821	868	919	775	621	585	---
24	760	752	797	730	780	821	---	912	770	---	581	552
25	739	---	770	739	780	821	872	912	768	628	592	557
26	720	752	774	742	785	826	872	911	761	627	585	544
27	741	760	748	738	781	---	880	916	755	605	579	544
28	741	774	780	738	789	828	881	916	744	611	594	553
29	729	767	768	738	805	831	880	916	748	618	588	569
30	729	---	748	739	---	833	878	911	731	621	592	579
31	802	---	768	741	---	825	---	909	---	604	---	---
MONTH	755	770	771	741	765	824	859	915	803	652	593	572
YEAR	MAX	922	MIN	544	MEAN	752						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	12.0	8.5	4.5	3.5	2.0	4.0	5.0	7.5	14.5	---	16.5
2	16.5	12.0	9.0	4.5	4.0	2.0	3.0	5.0	---	14.5	15.0	15.0
3	16.0	12.0	9.0	4.5	3.0	2.0	4.0	5.5	8.0	14.5	15.0	16.0
4	15.5	12.0	9.0	5.0	2.5	2.5	4.0	5.0	8.5	14.0	15.0	15.5
5	16.5	12.0	---	---	3.0	2.5	5.5	5.0	8.5	15.0	16.0	16.5
6	16.0	11.5	8.5	4.0	3.0	2.5	5.5	4.5	9.0	14.5	16.0	15.0
7	15.5	11.0	8.5	---	3.5	2.5	4.0	5.5	9.5	14.0	16.5	15.0
8	14.0	---	8.0	4.0	3.5	3.0	5.0	---	9.0	15.0	15.5	16.0
9	15.0	10.0	9.0	4.5	3.0	3.0	3.5	5.5	10.0	13.5	16.0	15.0
10	15.5	9.5	8.0	4.5	3.5	3.5	3.5	6.0	10.0	15.0	15.5	16.5
11	15.0	9.5	7.0	4.0	3.5	2.0	4.0	5.0	9.5	15.5	16.0	15.0
12	14.5	9.5	6.5	4.5	3.5	2.5	4.5	6.0	9.5	14.0	15.5	15.5
13	---	10.5	---	4.0	3.5	2.0	4.0	6.0	9.0	14.0	16.0	15.0
14	14.0	10.0	5.5	3.5	---	2.5	4.5	5.5	9.0	14.0	14.5	15.5
15	14.5	10.0	---	4.5	2.5	3.0	4.5	---	---	13.5	15.5	16.0
16	15.0	9.5	---	4.5	2.5	3.0	3.5	6.0	9.5	14.0	15.5	15.5
17	15.0	9.0	5.5	5.0	3.0	3.5	4.0	7.0	9.0	14.0	15.5	16.0
18	15.0	9.0	6.5	4.0	3.0	3.5	4.0	7.0	---	14.5	15.5	15.0
19	14.5	9.0	6.5	4.0	3.0	2.5	4.5	6.5	11.0	14.0	16.0	16.0
20	14.5	8.5	6.5	4.5	3.0	3.0	4.5	6.0	11.0	15.5	---	15.5
21	13.5	8.5	6.5	4.5	2.5	3.5	4.5	7.0	12.0	15.0	15.5	15.5
22	13.0	8.5	6.0	4.5	2.5	3.5	4.5	5.5	11.5	16.0	16.0	15.5
23	13.0	9.0	5.5	4.0	3.5	3.5	4.0	6.0	12.0	16.0	16.5	---
24	13.0	8.0	5.5	3.5	3.0	3.5	---	7.0	11.5	---	16.0	16.0
25	11.5	---	6.5	3.5	3.0	3.0	5.0	6.5	11.5	15.0	16.0	15.0
26	13.0	8.5	6.5	3.5	3.5	3.5	4.0	7.5	11.5	15.5	15.0	15.0
27	12.5	8.0	5.5	4.0	3.5	---	3.5	8.0	12.5	15.5	15.5	15.0
28	12.5	8.0	5.5	4.5	2.5	3.5	4.0	7.5	13.5	15.5	15.0	15.5
29	12.5	8.0	6.5	4.5	2.5	3.5	4.5	6.0	13.5	15.5	16.0	15.5
30	13.0	---	5.5	3.5	---	4.0	5.0	8.0	14.0	14.0	15.5	16.0
31	13.0	---	5.0	3.0	---	4.0	---	8.0	---	14.5	---	---
MONTH	14.5	9.5	7.0	4.0	3.0	3.0	4.0	6.0	10.5	14.5	15.5	15.5
YEAR	MAX	17.0	MIN	2.0	MEAN	9.0						

06289000 LITTLE BIGHORN RIVER AT STATE LINE, NEAR WYOLA, MT

LOCATION.--Lat 45°00'25", long 107°37'05", in SW¼NW¼ sec.36, T.9 S., R.33 E., Bighorn County, Hydrologic Unit 10080016, on right bank 20 ft (6 m) downstream from county bridge, 0.5 mi (0.8 km) north of Wyoming-Montana State line, 1.0 mi (1.6 km) downstream from West Fork, and 13 mi (21 km) southwest of Wyola.

DRAINAGE AREA.--193 mi^2 (500 km^2).

PERIOD OF RECORD.--March 1939 to current year. Prior to October 1940, published as Little Horn River at State line, near Wyola.

REVISED RECORDS.--WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,450 ft (1,360 m), from topographic map.

REMARKS.--Records good. Diversions for irrigation of 163 acres (660,000 m^2) above station.

AVERAGE DISCHARGE.--37 years, 155 ft^3/s (4.390 m^3/s), 112,300 acre-ft/yr (138 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,730 ft^3/s (77.3 m^3/s) June 3, 1944, gage height, 4.87 ft (1.484 m), from rating curve extended above 1,400 ft^3/s (39.6 m^3/s); maximum gage height recorded, 5.93 ft (1.807 m) June 9, 1944 (log jam); minimum discharge, 21 ft^3/s (0.59 m^3/s) Dec. 27, 1954, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 510 ft^3/s (14.4 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 3	2145	842	23.8	2.79	0.850
June 22	2300	*942	26.7	2.85	.869

Minimum daily discharge, 48 ft^3/s (1.36 m^3/s) Feb. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	129	113	94	68	74	75	73	82	628	429	204	117
2	126	113	113	66	74	50	73	87	659	394	222	117
3	124	113	106	61	75	50	71	94	696	409	200	115
4	124	110	104	74	58	58	73	108	677	375	176	115
5	124	108	100	91	48	58	73	119	665	356	170	115
6	121	110	96	78	48	73	79	110	622	347	167	115
7	124	108	96	57	74	89	82	106	622	333	161	129
8	126	104	94	77	91	87	80	117	610	320	158	117
9	124	98	94	85	87	80	82	141	569	307	155	115
10	124	102	94	87	82	78	85	167	552	294	155	113
11	124	104	94	80	78	77	84	222	535	281	153	113
12	121	98	93	78	78	72	89	193	535	276	150	117
13	124	104	93	75	78	77	96	180	486	268	150	117
14	121	104	71	74	77	75	96	255	454	250	147	115
15	119	102	91	77	78	74	94	320	459	242	144	110
16	119	104	85	75	78	74	102	259	502	234	144	108
17	119	104	61	72	78	74	91	259	513	226	139	108
18	119	104	87	74	77	74	89	338	481	226	139	108
19	115	98	100	71	77	75	87	439	518	218	139	110
20	115	69	96	72	75	76	84	486	587	218	139	106
21	117	75	93	72	74	76	85	518	671	211	136	104
22	124	84	91	74	75	76	84	518	703	204	136	102
23	113	106	91	74	75	76	85	497	741	197	131	102
24	110	106	89	74	75	74	82	507	622	190	136	102
25	113	102	89	65	75	77	87	558	569	190	131	102
26	124	100	87	62	75	71	93	541	524	190	131	113
27	121	100	87	82	77	74	89	552	491	186	129	106
28	113	91	85	75	77	74	85	640	460	186	126	102
29	115	66	85	75	77	73	84	690	449	183	121	100
30	115	57	85	75	---	73	80	634	434	183	121	100
31	115	---	84	74	---	73	---	616	---	180	119	---
TOTAL	3722	2957	2828	2294	2165	2263	2537	10353	17034	8103	4629	3313
MEAN	120	98.6	91.2	74.0	74.7	73.0	84.6	334	568	261	149	110
MAX	129	113	113	91	91	89	102	690	741	429	222	129
MIN	110	57	61	57	48	50	71	82	434	180	119	100
AC-FT	7380	5870	5610	4550	4290	4490	5030	20540	33790	16070	9180	6570

CAL YR 1975 TOTAL 93446 MEAN 256 MAX 1710 MIN 50 AC-FT 185400
WTR YR 1976 TOTAL 62198 MEAN 170 MAX 741 MIN 48 AC-FT 123400

06289800 EAST PASS CREEK NEAR PARKMAN, WY

LOCATION.--Lat 44°56'37", long 107°29'05", Sheridan County, Hydrologic Unit 10080016, on left bank 0.6 mi (1.0 km) upstream from Taffner Creek, 1.5 mi (2.4 km) downstream from West Fork, and 7.7 mi (12.4 km) west of Parkman.

DRAINAGE AREA.--11.6 mi^2 (30.0 km^2).

PERIOD OF RECORD.--October 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 4,940 ft (1,506 m), from topographic map.

REMARKS.--Records fair except those above 12 ft^3/s (0.340 m^3/s), which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120 ft^3/s (3.40 m^3/s) June 7, 1975, gage height, 1.72 ft (0.524 m); minimum daily, 2.5 ft^3/s (0.071 m^3/s) Jan. 11, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 78 ft^3/s (2.21 m^3/s) June 20, gage height, 1.38 ft (0.421 m); minimum daily, 3.0 ft^3/s (0.085 m^3/s) Jan. 1, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	6.9	8.4	3.0	6.0	4.8	5.6	12	31	20	12	6.5
2	7.6	6.9	12	3.8	6.0	3.5	6.0	14	31	19	12	6.5
3	7.4	6.9	9.9	4.1	5.6	4.1	6.0	14	29	16	11	6.9
4	7.2	6.9	7.4	6.5	3.8	5.6	6.0	16	29	16	9.9	6.9
5	7.2	6.9	6.0	7.4	3.5	6.5	6.5	19	29	15	9.4	7.4
6	7.4	6.9	5.6	4.1	4.8	6.9	6.9	21	28	15	8.9	7.4
7	7.4	6.9	5.6	3.0	7.9	6.0	7.9	18	23	15	8.4	8.4
8	7.4	6.9	6.0	4.1	8.4	6.0	7.9	19	22	15	8.4	7.9
9	8.0	6.5	6.0	7.4	7.4	6.0	8.9	21	20	15	8.4	7.9
10	8.6	6.5	6.0	6.0	6.5	6.0	9.4	23	18	14	8.4	7.4
11	8.4	6.5	5.6	5.6	6.0	5.8	9.4	34	16	14	8.4	6.9
12	8.2	6.0	5.6	5.6	6.0	5.6	10	29	16	14	8.4	6.9
13	8.4	6.0	5.6	5.6	6.0	5.8	12	26	16	14	8.4	7.4
14	9.0	6.0	4.1	5.2	6.0	5.8	12	28	20	13	8.4	7.4
15	8.8	6.0	6.0	5.2	5.6	5.8	12	40	20	12	8.4	7.4
16	9.0	6.0	5.2	5.6	5.6	6.0	13	35	21	12	8.4	7.4
17	9.0	6.5	4.1	6.0	6.0	6.0	11	29	48	12	8.4	7.4
18	9.6	6.5	6.0	6.0	5.6	6.0	10	31	56	12	7.9	7.4
19	9.0	6.0	5.2	5.6	5.6	6.0	10	42	57	12	7.9	7.4
20	8.4	5.6	4.8	6.0	5.6	5.6	10	45	68	12	7.4	7.9
21	8.4	6.0	4.8	5.6	5.6	5.6	10	45	68	12	7.4	7.9
22	8.0	7.9	4.8	5.6	5.6	5.6	10	42	56	12	7.4	7.4
23	7.9	7.4	4.8	5.6	5.6	5.6	10	40	49	12	7.4	7.4
24	7.4	6.9	4.8	5.2	5.2	5.6	10	39	45	12	7.4	7.9
25	6.9	6.5	5.2	4.5	5.2	5.6	11	38	36	11	7.4	8.4
26	7.4	6.9	5.2	5.6	4.8	5.6	12	33	32	11	6.9	9.4
27	6.9	6.9	5.2	6.5	4.8	5.6	12	33	28	11	6.9	8.9
28	6.5	6.0	5.2	6.0	4.8	5.6	12	34	24	10	6.9	8.4
29	6.9	4.5	5.2	6.0	4.8	5.2	12	34	21	10	6.9	7.9
30	6.9	4.8	5.2	6.0	---	5.2	12	35	21	10	6.5	7.4
31	6.9	---	4.1	6.0	---	5.2	---	33	---	9.9	6.5	---
TOTAL	243.7	193.1	179.6	168.4	164.3	174.2	291.5	922	978	407.9	256.4	227.7
MEAN	7.86	6.44	5.79	5.43	5.67	5.62	9.72	29.7	32.6	13.2	8.27	7.59
MAX	9.6	7.9	12	7.4	8.4	6.9	13	45	68	20	12	9.4
MIN	6.5	4.5	4.1	3.0	3.5	3.5	5.6	12	16	9.9	6.5	6.5
AC-FT	483	383	356	334	326	346	578	1830	1940	809	509	452

CAL YR 1975 TOTAL 6640.0 MEAN 18.2 MAX 107 MIN 2.5 AC-FT 13170
WTR YR 1976 TOTAL 4206.8 MEAN 11.5 MAX 68 MIN 3.0 AC-FT 8340

06297480 TONGUE RIVER AT TONGUE CANYON CAMPGROUND, NEAR DAYTON, WY

LOCATION.--Lat 44°50'45", long 107°19'56", in SE¼NE¼NW¼ sec.10, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, on left bank at footbridge, 0.2 mi (0.3 km) upstream from Tongue Canyon Campground, 1.0 mi (1.6 km) upstream from intake of Highline ditch, 2.1 mi (3.4 km) downstream from Sheep Creek, and 3.8 mi (6.1 km) southwest of Dayton.

DRAINAGE AREA.--202 mi² (523 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,210 ft (1,283 m), from topographic map.

REMARKS.--Records fair except those for November to March, which are poor. No diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,480 ft³/s (70.2 m³/s) June 25, 1975, gage height, 4.37 ft (1.332 m); minimum daily, 33 ft³/s (0.93 m³/s) Mar. 28, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 980 ft³/s (27.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	(m³/s)	Gage height (ft)	(m)
June 6	0330	*1,170	33.1	3.77	1.149

Minimum daily discharge, 35 ft³/s (0.99 m³/s) Mar. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	81	70	38	52	47	52	79	858	436	207	93
2	96	83	69	41	51	35	47	90	904	422	342	92
3	94	86	71	45	50	38	42	110	916	409	339	90
4	93	83	71	55	44	43	48	144	976	373	214	87
5	92	81	67	64	40	47	52	162	964	355	188	86
6	92	81	66	56	50	50	59	144	1030	349	177	83
7	88	80	67	48	56	50	66	150	904	342	165	105
8	92	69	67	54	58	51	61	195	847	323	156	99
9	87	55	67	60	55	51	67	249	781	302	150	93
10	94	53	66	60	54	52	71	288	704	291	148	86
11	90	60	65	54	52	48	67	362	642	282	148	83
12	87	56	59	53	52	43	80	305	615	279	148	86
13	88	69	54	55	51	48	92	317	556	274	141	92
14	92	75	44	53	51	47	94	445	514	260	135	84
15	86	75	48	53	51	48	92	462	514	247	131	80
16	93	76	47	55	50	48	94	373	693	236	126	79
17	88	76	44	56	50	50	67	404	671	226	124	75
18	96	72	62	56	49	50	74	542	570	226	120	75
19	90	65	64	53	49	48	74	693	615	226	124	79
20	88	36	63	51	49	42	65	792	660	226	119	78
21	87	43	61	52	48	46	69	814	693	214	113	75
22	90	52	60	53	47	47	67	836	682	200	110	71
23	75	70	59	53	49	47	70	814	792	188	109	84
24	70	66	59	48	49	46	67	803	624	184	110	86
25	66	61	60	46	49	47	75	880	563	175	110	81
26	87	52	61	50	48	44	87	803	542	177	104	101
27	84	58	60	56	48	46	80	803	494	177	105	98
28	74	58	59	55	50	48	72	904	467	169	102	83
29	80	50	58	54	47	44	75	1030	456	162	99	79
30	84	50	59	52	---	44	72	916	436	160	96	74
31	84	---	56	52	---	48	---	869	---	158	98	---
TOTAL	2705	1972	1883	1631	1449	1443	2098	15778	20683	8048	4558	2557
MEAN	87.3	65.7	60.7	52.6	50.0	46.5	69.9	509	689	260	147	85.2
MAX	98	86	71	64	58	52	94	1030	1030	436	342	105
MIN	66	36	44	38	40	35	42	79	436	158	96	71
AC-FT	5370	3910	3730	3240	2870	2860	4160	31300	41020	15960	9040	5070

CAL YR 1975 TOTAL 102296 MEAN 280 MAX 2120 MIN 33 AC-FT 202900
WTR YR 1976 TOTAL 64805 MEAN 177 MAX 1030 MIN 35 AC-FT 128500

06298000 TONGUE RIVER NEAR DAYTON, WY

LOCATION.--Lat 44°50'58", long 107°18'14", in NE¼NE¼NE¼ sec.11, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, on left bank 0.5 mi (0.8 km) upstream from Crystal Draw, 0.6 mi (1.0 km) downstream from intake of Highline ditch, and 2.5 mi (4.0 km) southwest of Dayton.

DRAINAGE AREA.--204 mi^2 (528 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1918 to September 1929, October 1940 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1921.

GAGE.--Water-stage recorder. Altitude of gage is 4,060 ft (1,237 m), from topographic map.

REMARKS.--Records good except those for October, which are poor. Small diversion above station for Dayton municipal supply. Figures of daily discharge do not include water diverted 0.6 mi (1.0 km) above station by Highline ditch for irrigation below station.

AVERAGE DISCHARGE.--47 years (water years 1919-29, 1941-76), 189 ft^3/s (5.352 m^3/s), 136,900 acre-ft/yr (169 hm^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,400 ft^3/s (96.3 m^3/s) June 3, 1944, gage height, 6.45 ft (1.966 m); minimum daily, 18 ft^3/s (0.51 m^3/s) Nov. 29, 1919.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 980 ft^3/s (27.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 6	0400	*1,120	31.7	4.10	1.250

Minimum daily discharge, 36 ft^3/s (1.02 m^3/s) Mar. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	85	89	72	39	51	47	51	89	838	470	215	87
2	84	90	69	43	53	36	49	110	871	455	365	85
3	82	89	69	46	51	37	44	138	890	430	375	82
4	78	89	69	60	44	43	50	178	931	400	213	81
5	77	85	67	67	39	46	53	193	917	380	184	78
6	75	85	65	57	47	51	60	173	959	365	170	77
7	74	82	65	50	56	50	69	178	871	360	156	100
8	75	69	65	56	59	51	64	230	819	336	153	93
9	75	57	65	62	55	50	72	284	762	309	145	85
10	82	56	64	62	54	50	77	332	684	288	145	80
11	74	65	64	56	53	48	71	425	644	276	148	77
12	72	56	59	54	53	43	87	345	627	272	145	78
13	74	71	56	56	51	48	102	350	561	264	135	85
14	90	78	46	55	51	48	106	517	550	249	130	78
15	84	78	50	54	51	47	102	517	583	238	128	75
16	92	80	48	56	50	49	108	425	708	234	126	72
17	89	80	46	56	50	51	74	450	672	227	121	70
18	96	74	61	56	50	51	80	566	600	227	117	70
19	89	67	64	55	50	51	75	702	649	220	119	75
20	87	38	61	51	50	46	69	786	666	220	117	72
21	85	46	59	53	48	49	77	819	696	213	108	69
22	91	57	57	53	47	49	74	838	672	197	106	67
23	80	74	56	53	49	48	78	832	774	184	104	80
24	72	71	56	48	49	46	75	826	627	181	102	80
25	69	64	57	46	49	47	87	384	583	173	100	78
26	94	56	57	50	48	46	100	800	561	176	96	99
27	94	61	57	57	49	47	92	780	517	173	99	92
28	75	61	56	56	48	49	85	864	495	167	93	78
29	85	51	55	56	47	45	87	987	485	156	92	73
30	90	51	56	54	---	46	82	884	475	153	90	71
31	94	---	53	51	---	49	---	832	---	148	91	---
TOTAL	2563	2070	1844	1668	1452	1464	2300	16334	20687	8141	4488	2387
MEAN	82.7	69.0	59.5	53.8	50.1	47.2	76.7	527	690	263	145	79.6
MAX	96	90	72	67	59	51	108	987	959	470	375	100
MIN	69	38	46	39	39	36	44	89	475	148	90	67
AC-FT	5080	4110	3660	3310	2880	2900	4560	32400	41030	16150	8900	4730
†	480	0	0	0	0	0	0	446	1120	894	726	624

ADJUSTED FOR DIVERSION BY HIGHLINE DITCH

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	90.5	69.0	59.5	53.8	50.1	47.2	76.7	534	708	277	157	90.0
AC-FT	5,560	4,110	3,660	3,310	2,880	2,900	4,560	32,840	42,150	17,040	9,630	5,360

	UNADJUSTED					ADJUSTED	
CAL YR 1975	TOTAL 97,872	MEAN 268	MAX 2,140	MIN 29	AC-FT 194,100	MEAN 274	AC-FT 198,600
WTR YR 1976	TOTAL 65,398	MEAN 179	MAX 987	MIN 36	AC-FT 129,700	MEAN 185	AC-FT 134,000

† Diversion, in acre-ft, above station by Highline ditch.

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 04...	1015	A78	270	8.1	10.0	--	10.1	1.6	B11	140	7
NOV 08...	1100	65	300	7.6	6.0	5	9.4	1.8	0	160	0
DEC 06...	1030	65	290	8.1	2.0	1	11.8	2.0	B1	140	4
JAN 10...	1200	61	360	7.7	5.0	1	10.4	3.0	B1	180	6
FEB 07...	1115	55	270	7.9	.5	1	9.0	1.2	B1	150	2
MAR 08...	1040	51	320	8.1	1.0	2	12.0	2.2	B1	150	9
APR 10...	1130	77	310	8.0	6.0	2	11.6	3.0	B1	140	9
MAY 08...	0945	203	260	8.0	6.5	5	10.9	3.5	B9	100	0
JUN 13...	1015	561	165	8.1	9.0	3	9.3	3.4	B12	83	1
JUL 11...	1200	280	200	8.0	18.0	1	8.3	4.9	B14	100	0
AUG 07...	1100	158	240	8.0	15.0	3	8.2	3.0	B11	120	5
SEP 04...	1130	82	270	7.9	14.0	1	7.6	1.9	B13	130	0

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT 04...	37	12	1.2	.0	1.0	150	6	133	3.3	.0
NOV 08...	40	16	2.3	.1	.5	200	0	164	3.3	1.8
DEC 06...	35	12	1.8	.1	1.2	160	3	136	4.9	.0
JAN 10...	45	16	1.8	.1	1.2	210	0	172	4.9	1.7
FEB 07...	38	14	1.8	.1	.7	180	0	148	4.9	.7
MAR 08...	38	13	1.8	.1	1.2	160	6	141	7.4	.0
APR 10...	37	12	1.8	.1	1.2	160	0	131	19	1.8
MAY 08...	28	8.3	1.8	.1	1.2	130	0	107	.0	1.8
JUN 13...	22	6.8	1.8	.1	.9	100	0	82	5.8	.0
JUL 11...	26	9.6	2.9	.1	.5	130	0	107	4.1	.0
AUG 07...	29	10	2.3	.1	.5	140	0	115	6.6	.0
SEP 04...	33	13	3.5	.1	1.6	170	0	139	3.3	.0

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	SUS-PENDED SOLIDS (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)
OCT 04...	.2	6.1	141	.19	29.7	12	.05	.03	.01	.23
NOV 08...	.2	5.7	170	.23	29.8	0	.07	.16	.00	.20
DEC 06...	.2	5.6	145	.20	25.4	0	.09	.19	.02	.12
JAN 10...	.1	7.0	182	.25	30.0	0	.27	.36	.04	.40
FEB 07...	.2	6.4	154	.21	22.9	0	.16	.29	.04	.17
MAR 08...	.1	6.5	155	.21	21.3	0	.18	.61	.00	.21
APR 10...	.1	6.2	159	.22	33.1	4	.14	.27	.13	.46
MAY 08...	.1	6.6	110	.15	60.3	9	.09	.09	.02	.10
JUN 13...	.1	6.3	95	.13	144	0	.07	.09	.02	.13
JUL 11...	.1	6.9	112	.15	84.7	8	.05	.10	.08	.34
AUG 07...	.1	6.8	125	.17	53.3	0	.07	.02	.00	.13
SEP 04...	.2	6.2	146	.20	32.3	0	.32	.15	.05	.23

DATE	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL BORON (B) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M	UNCOR-RECTED PERI-PHYTON CHLORO-PHYLL B MG/SQ M	UNCOR-RECTED PERI-PHYTON CHLORO-PHYLL A MG/SQ M
OCT 04...	.24	.27	.00	140	1.4	200	11.0	14.0	.200	7.60
NOV 08...	.20	.36	.00	--	--	290	--	--	--	--
DEC 06...	.14	.33	.00	--	--	140	--	--	--	--
JAN 10...	.44	.80	.01	20	8.0	150	--	--	--	--
FEB 07...	.21	.50	.00	100	--	140	--	--	--	--
MAR 08...	.21	.82	.00	100	--	540	--	--	--	--
APR 10...	.59	.86	.01	30	2.2	920	--	--	--	--
MAY 08...	.12	.21	.01	60	--	1200	--	--	--	--
JUN 13...	.15	.24	.01	10	--	850	--	--	--	--
JUL 11...	.42	.52	.01	40	4.4	1600	--	--	--	--
AUG 07...	.13	.15	.02	50	--	1200	--	--	--	--
SEP 04...	.28	.43	.00	70	--	440	--	--	--	--

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	SUSPENDED ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUSPENDED ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	SUSPENDED BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	SUSPENDED CADMIUM (CD) (UG/L)
OCT 04...	1015	50	50	0	0	0	0	<10	0	<10	0	0
JAN 10...	1200	70	70	0	0	0	0	10	0	10	<10	<9
APR 10...	1130	90	90	0	0	0	0	0	0	0	<10	<9
JUL 11...	1200	150	130	20	0	0	0	0	0	0	<10	<10

DATE	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	SUSPENDED CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUSPENDED COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUSPENDED LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
OCT 04...	0	10	0	10	10	10	0	10	20	0	0	2
JAN 10...	1	0	0	0	<10	<8	2	0	10	<100	<99	1
APR 10...	1	0	0	0	10	9	1	110	0	<100	<100	0
JUL 11...	0	0	0	0	10	8	2	220	20	<100	<99	1

DATE	TOTAL LITHIUM (LI) (UG/L)	SUSPENDED LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUSPENDED MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	SUSPENDED MOLYBDENUM (MO) (UG/L)
OCT 04...	10	0	10	10	0	10	.2	.2	.0	1	0
JAN 10...	0	0	0	10	10	0	.0	.0	.1	2	1
APR 10...	0	0	10	10	0	10	.0	.0	.0	0	0
JUL 11...	0	0	0	20	20	0	.0	.0	.1	0	0

DATE	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	SUSPENDED NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	SUSPENDED SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUSPENDED ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT 04...	1	<50	<50	0	0	0	0	.8	10	0	10
JAN 10...	1	<50	<48	2	1	1	0	1.1	10	0	10
APR 10...	0	<50	<49	1	0	0	0	.9	70	70	0
JUL 11...	0	<50	<50	0	0	0	0	.1	20	10	10

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	OCT 4,75	NOV 8,75	DEC 6,75	JAN 10,76	FEB 7,76	MAR 8,76
TIME	1015	1100	1030	1200	1115	1040
TOTAL CELLS/ML	200	290	140	150	140	540
DIVERSITY: DIVISION	0.0	0.2	0.0	0.3	0.0	0.0
.CLASS	0.0	0.2	0.0	0.3	0.0	0.0
..ORDER	0.4	0.2	0.4	0.3	0.0	0.0
...FAMILY	2.0	2.6	2.8	2.6	1.9	2.2
....GENUS	2.0	2.8	3.2	2.7	1.9	2.5

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	10	4	--	-	7	5	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES												
...PHACOTACEAE												
....PTEROMONAS	--	-	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....CLOSTERIUM	--	-	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	17	9	--	-	--	-	--	-	--	-	--	-
....MELOSIRA	--	-	--	-	9	7	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	34#	17	29	10	9	7	35#	23	69#	40	110#	21
....COCCONEIS	*	0	38	13	19	14	7	5	*	0	*	0
...CYMBELLACEAE												
....AMPHORA	--	-	--	-	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	67#	23	9	7	35#	23	14	10	110#	21
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	*	0	14	11	--	-	--	-	*	0
...FRAGILARIACEAE												
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-	--	-
....HANNAEA	--	-	57#	20	24#	18	28#	19	7	5	75	14
.....H.ARCUS	--	-	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	9	7	*	0	*	0	75	14
...GOMPHONEMATACEAE												
....GOMPHONEMA	17	9	10	4	19	14	7	5	34#	24	130#	25
...MERIDIONACEAE												
....MERIDION	--	-	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE												
....NAVICULA	34#	17	48#	17	14	11	21	14	21	15	37	7
...NITZSCHIACEAE												
....NITZSCHIA	100#	51	38	13	9	7	14	10	--	-	--	-
...SURIRELLACEAE												
....SURIRELLA	--	-	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.MYXOPHYCEAE												
..OSCILLATORIALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	APR 10.76	MAY 8.76	JUN 13.76	JUL 11.76	AUG 7.76	SEP 4.76
TIME	1130	0945	1015	1200	1100	1130
TOTAL CELLS/ML	920	1200	850	1600	1200	440
DIVERSITY: DIVISION	0.2	0.0	0.0	1.1	1.0	0.0
.CLASS	0.2	0.0	0.0	1.1	1.0	0.0
..ORDER	0.6	0.0	0.0	1.2	1.0	0.0
...FAMILY	1.9	2.4	2.8	2.1	1.9	2.1
....GENUS	2.1	2.5	3.2	2.1	2.0	2.1

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	43	3	--	-	--	-
..VOLVOCALES												
...PHACOTACEAE												
....PTEROMONAS	32	4	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES												
...DESMIDIACEAE												
....CLOSTERIUM	--	-	--	-	*	0	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	--	-	--	-	22	2	--	-	--	-
....MELOSIRA	64	7	--	-	*	0	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	510#	56	120	11	190#	23	--	-	53	5	--	-
....COCCONEIS	32	4	40	4	17	3	22	2	190#	16	210#	49
...CYMBELLACEAE												
....AMPHORA	--	-	--	-	17	3	--	-	--	-	--	-
....CYMBELLA	--	-	400#	35	120	15	220	14	93	8	71#	17
....EPITHEMIA	--	-	--	-	*	0	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	--	-	17	3	22	2	--	-	--	-
...FRAGILARIACEAE												
....FRAGILARIA	--	-	--	-	35	5	--	-	--	-	--	-
....HANNAEA	--	-	160	14	17	3	43	3	--	-	18	5
.....H.ARCUS	*	0	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	17	3	--	-	13	2	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	130	14	80	7	120	15	43	3	27	3	18	5
...MERIDIONACEAE												
....MERIDION	--	-	--	-	17	3	--	-	--	-	--	-
...NAVICULACEAE												
....NAVICULA	95	11	240#	21	120	15	300#	19	110	9	53	13
...NITZSCHIACEAE												
....NITZSCHIA	64	7	120	11	120	15	43	3	40	4	71#	17
...SURIRELLACEAE												
....SURIRELLA	--	-	--	-	35	5	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.MYXOPHYCEAE												
..OSCILLATORIALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	860#	54	670#	57	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

NOV. 8. 1975
1109 HOURS

IDENTIFICATION OF PERIPHYTON

_ORGANISM__NAME	_COMMON__NAME
CHLOROPHYTA	GREEN ALGAE
.CHLOROPHYCEAE	
..TETRASPORALES	
...TETRASPORACEAE	
....TETRASPORA	
..ULOTRICHALES	
...CHAETOPHORACEAE	
....STIGEOCLONIUM	
...ULOTRICHACEAE	
....ULOTHRIX	
..ZYGNEMATALES	
...DESMIDIACEAE	PLACODERM DESMIDS
....CLOSTERIUM	
CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..CENTRALES	CENTRIC
...COSCINODISCACEAE	
....MELOSIRA	
..PENNALES	PENNATE
...ACHNANTHACEAE	
....ACHNANTHES	
....COCCONEIS	
...CYMBELLACEAE	
....CYMBELLA	
...DIATOMACEAE	
....DIATOMA	
...FRAGILARIACEAE	
....HANNAEA	
....SYNEDRA	
...GOMPHONEMATACEAE	
....GOMPHONEMA	
...MERIDIONACEAE	
....MERIDION	
...NAVICULACEAE	NAVICULOID
....NAVICULA	
....NEIDIUM	
....PINNULARIA	
...NITZSCHIACEAE	
....NITZSCHIA	
...SURIRELLACEAE	
....SURIRELLA	
CYANOPHYTA	BLUE-GREEN ALGAE
.MYXOPHYCEAE	
..OSCILLATORIALES	FILAMENTOUS
...OSCILLATORIACEAE	
....LYNGBYA	
....OSCILLATORIA	
RHODOPHYTA	RED ALGAE
.RHODOPHYCEAE	
..NEMALIONALES	
...CHANTRANSICACEAE	
....AUDOUINELLA	

NOTE: & - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
SAMPLING METHOD: PLASTIC SLIDES. TIMED SAMPLING INTERVAL
ANALYSIS METHOD: SLIDE MOUNTING. 200-X MICROSCOPE

06298000 TONGUE RIVER NEAR DAYTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

JAN. 10, 1976
1200 HOURS

IDENTIFICATION OF PERIPHYTON

_ORGANISM__NAME	_COMMON__NAME
CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...ACHNANTHACEAE	
& ....ACHNANTHES	
....COCCONEIS	
....RHOICOSPHENIA	
...CYMBELLACEAE	
& ....CYMBELLA	
...DIATOMACEAE	
....DIATOMA	
...FRAGILARIACEAE	
....FRAGILARIA	
& ....HANNAEA	
....SYNEDRA	
...GOMPHONEMATACEAE	
....GOMPHONEMA	
...MERIDIONACEAE	
....MERIDION	
...NAVICULACEAE	NAVICULOID
....FRUSTULIA	
....NAVICULA	
....PINNULARIA	
...NITZSCHIACEAE	
....NITZSCHIA	
...SURIRELLACEAE	
....SURIRELLA	
CYANOPHYTA	BLUE-GREEN ALGAE
.MYXOPHYCEAE	
..OSCILLATORIALES	FILAMENTOUS
...OSCILLATORIACEAE	
....OSCILLATORIA	
RHODOPHYTA	RED ALGAE
.RHODOPHYCEAE	
..NEMALIONALES	
...CHANTRANSICACEAE	
....AUDOUINELLA	

APR. 10, 1976
1130 HOURS

IDENTIFICATION OF PERIPHYTON

_ORGANISM__NAME	_COMMON__NAME
CHLOROPHYTA	GREEN ALGAE
.CHLOROPHYCEAE	
..ULOTRICHALES	
...CHAETOPHORACEAE	
& ....STIGEOCLONIUM	
..ZYGNEMATALES	
...ZYGNEMATACEAE	
....SPIROGYRA	
CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...ACHNANTHACEAE	
& ....ACHNANTHES	
....COCCONEIS	
...CYMBELLACEAE	
....CYMBELLA	
...DIATOMACEAE	
....DIATOMA	
...FRAGILARIACEAE	
....HANNAEA	
....SYNEDRA	
...GOMPHONEMATACEAE	
& ....GOMPHONEMA	
...MERIDIONACEAE	
....MERIDION	
...NAVICULACEAE	NAVICULOID
....NAVICULA	
....PINNULARIA	
...NITZSCHIACEAE	
....NITZSCHIA	
CYANOPHYTA	BLUE-GREEN ALGAE
.MYXOPHYCEAE	
..OSCILLATORIALES	FILAMENTOUS
...NOSTOCACEAE	
....ANABAENA	
...OSCILLATORIACEAE	
....OSCILLATORIA	

NOTE: & - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

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                         AUG. 7, 1976
                          1100 HOURS

                 IDENTIFICATION OF PERIPHYTON

  _ORGANISM__NAME______________   _COMMON__NAME______

  CHLOROPHYTA                      GREEN ALGAE
  .CHLOROPHYCEAE
  ..ULOTRICHALES
  ...CHAETOPHORACEAE
  ....STIGEOCLONIUM
  ...ULOTRICHACEAE
& ....ULOTHRIX
  CHRYSOPHYTA
  .BACILLARIOPHYCEAE               DIATOMS
  ..CENTRALES                      CENTRIC
  ...COSCINODISCACEAE
  ....MELOSIRA
  ..PENNALES                       PENNATE
  ...ACHNANTHACEAE
& ....ACHNANTHES
& ....COCCONEIS
  ...CYMBELLACEAE
  ....CYMBELLA
  ....EPITHEMIA
  ...FRAGILARIACEAE
  ....FRAGILARIA
  ....HANNAEA
  ....SYNEDRA
  ...GOMPHONEMATACEAE
  ....GOMPHONEMA
  ...NAVICULACEAE                  NAVICULOID
  ....FRUSTULIA
  ....NAVICULA
  ....PINNULARIA
  ...NITZSCHIACEAE
  ....NITZSCHIA
  CYANOPHYTA                       BLUE-GREEN ALGAE
  .MYXOPHYCEAE
  ..OSCILLATORIALES                FILAMENTOUS
  ...OSCILLATORIACEAE
& ....LYNGBYA
  ....OSCILLATORIA
  EUGLENOPHYTA                     EUGLENOIDS
  .EUGLENOPHYCEAE
  ..EUGLENALES
  ...EUGLENACEAE
  ....EUGLENA
  RHODOPHYTA                       RED ALGAE
  .RHODOPHYCEAE
  ..NEMALIONALES
  ...CHANTRANSICACEAE
  ....AUDOUINELLA


NOTE: & - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
      SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
      ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE
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06298480 LITTLE TONGUE RIVER AT STEAMBOAT POINT, NEAR DAYTON, WY

LOCATION.--Lat 44°48'25", long 107°20'47", in SW¼SE¼SE¼ sec.21, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, on left bank 0.6 mi (1.0 km) east of Steamboat Point, 3.0 mi (4.8 km) upstream from South Fork, and 6.3 mi (10.1 km) southwest of Dayton.

DRAINAGE AREA.--11.4 mi^2 (29.5 km^2).

PERIOD OF RECORD.--October 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,780 ft (2,067 m), from topographic map.

REMARKS.--Records fair except those for winter periods, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 230 ft^3/s (6.51 m^3/s) June 21, 1975, gage height, 3.67 ft (1.119 m); minimum daily, 0.70 ft^3/s (0.020 m^3/s) Jan. 11, 1975, Mar. 2, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 89 ft^3/s (2.52 m^3/s) May 24, gage height, 3.12 ft (0.951 m); minimum daily, 0.70 ft^3/s (0.020 m^3/s) Mar. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	2.0	1.6	1.4	1.1	.75	1.0	3.5	58	19	23	3.1
2	2.1	2.0	1.5	1.4	1.1	.70	1.0	4.5	56	19	27	3.0
3	2.0	2.0	1.5	1.4	1.1	.75	.95	5.6	52	19	16	3.0
4	2.0	2.1	1.5	1.4	1.0	.75	1.0	7.5	48	17	9.5	2.9
5	1.8	2.0	1.5	1.4	.90	.80	1.2	8.7	48	16	9.2	2.8
6	1.8	2.0	1.5	1.4	.95	.85	1.6	7.7	49	16	7.5	2.8
7	1.8	2.0	1.5	1.4	1.0	.85	2.0	8.4	40	15	6.5	4.0
8	1.8	1.9	1.5	1.4	1.0	.85	1.9	12	36	13	6.3	3.8
9	1.9	1.8	1.5	1.4	.95	.80	2.4	14	32	13	5.9	3.4
10	2.1	1.6	1.5	1.4	.90	.80	2.5	18	28	12	6.1	3.0
11	2.1	1.7	1.4	1.4	.90	.80	2.6	25	25	12	6.7	2.9
12	2.0	1.6	1.3	1.4	.85	.75	3.5	22	26	11	7.0	3.1
13	2.0	1.7	1.3	1.4	.85	.80	4.0	26	24	11	6.7	3.4
14	2.2	1.7	1.3	1.4	.85	.80	4.5	39	26	10	6.1	3.2
15	2.1	1.6	1.4	1.4	.85	.80	4.5	37	36	10	5.7	2.9
16	2.1	1.5	1.5	1.4	.80	.80	4.2	35	38	9.8	4.6	2.8
17	2.3	1.5	1.7	1.4	.80	.80	3.3	39	35	9.2	4.5	2.7
18	2.6	1.4	1.7	1.4	.80	.80	3.0	49	32	8.7	4.3	2.7
19	2.3	1.4	1.7	1.4	.80	.80	2.9	60	33	8.9	4.5	3.0
20	2.1	1.3	1.5	1.3	.80	.80	2.9	71	33	10	4.3	2.9
21	2.0	1.4	1.5	1.3	.80	.80	2.8	73	32	8.7	4.3	2.7
22	2.0	1.5	1.5	1.3	.80	.80	2.8	73	30	7.7	3.9	2.6
23	1.9	1.7	1.5	1.3	.80	.80	3.0	73	38	7.2	4.0	2.9
24	1.6	1.6	1.6	1.2	.80	.80	3.0	73	30	7.0	4.0	3.2
25	1.5	1.6	1.6	1.2	.80	.80	3.3	72	28	6.5	3.9	3.7
26	2.0	1.5	1.6	1.2	.80	.80	3.8	68	27	6.5	3.8	5.4
27	2.0	1.5	1.5	1.2	.80	.80	4.0	65	24	7.0	3.8	4.4
28	1.7	1.5	1.5	1.2	.80	.80	3.5	65	22	6.7	3.8	3.4
29	1.9	1.4	1.7	1.2	.80	.80	3.1	67	22	6.3	3.3	3.2
30	2.0	1.5	1.5	1.2	---	.85	3.0	64	21	6.5	3.2	3.0
31	2.1	---	1.4	1.1	---	.90	---	60	---	6.5	3.2	---
TOTAL	61.9	50.0	46.8	41.3	25.50	24.80	83.25	1245.9	1029	336.2	212.6	95.9
MEAN	2.00	1.67	1.51	1.33	.88	.80	2.78	40.2	34.3	10.8	6.86	3.20
MAX	2.6	2.1	1.7	1.4	1.1	.90	4.5	73	58	19	27	5.4
MIN	1.5	1.3	1.3	1.1	.80	.70	.95	3.5	21	6.3	3.2	2.6
AC-FT	123	99	93	82	51	49	165	2470	2040	667	422	190

CAL YR 1975 TOTAL 5738.60 MEAN 15.7 MAX 170 MIN .70 AC-FT 11380
WTR YR 1976 TOTAL 3253.15 MEAN 8.89 MAX 73 MIN .70 AC-FT 6450

06298490 LITTLE TONGUE RIVER ABOVE SOUTH FORK LITTLE TONGUE RIVER, NEAR DAYTON, WY

LOCATION.--Lat 44°48'22", long 107°17'44", in SW¼SE¼SW¼ sec.24, T.56 N., R.87 W., Sheridan County, Hydrologic Unit 10090101, on left bank 0.3 mi (0.5 km) downstream from Bighorn National Forest boundary, 0.5 mi (0.8 km) upstream from South Fork, and 5.0 mi (8.0 km) southwest of Dayton.

DRAINAGE AREA.--14.1 mi^3 (36.5 km^2).

PERIOD OF RECORD.--October 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 4,560 ft (1,390 m), from topographic map.

REMARKS.--Records fair except those for September, and those for periods of no gage-height record, May 26 to June 11, and June 21 to July 20, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 178 ft^3/s (5.04 m^3/s) June 21, 1975, gage height, 2.74 ft (0.835 m); minimum daily, 0.31 ft^3/s (0.009 m^3/s) Feb. 5, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft^3/s (1.25 m^3/s) May 24, gage height, 1.80 ft (0.549 m); minimum daily, 0.31 ft^3/s (0.009 m^3/s) Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.8	1.4	.98	.73	.73	.46	2.3	43	18	6.9	2.5
2	1.8	1.8	1.3	1.0	.73	.37	.46	3.1	43	18	16	2.5
3	2.0	1.8	1.2	1.0	.73	.54	.46	4.0	42	18	16	2.3
4	2.0	1.8	1.2	1.0	.52	.67	.46	5.7	42	17	13	2.3
5	2.0	1.8	1.3	1.0	.31	.67	.46	7.6	42	15	11	2.3
6	1.8	1.8	1.3	1.0	.79	.67	.51	7.8	42	15	10	2.3
7	1.8	1.7	1.3	1.0	.79	.67	.73	8.1	43	14	8.7	3.0
8	1.8	1.6	1.3	1.0	.79	.67	.79	9.9	43	13	7.8	2.8
9	2.0	1.4	1.3	1.0	.79	.73	.98	12	42	13	7.0	2.6
10	2.1	1.7	1.3	1.0	.73	.73	1.1	15	42	12	6.8	2.3
11	2.1	1.7	1.3	.98	.73	.73	1.1	20	42	11	6.5	2.1
12	2.0	1.6	1.3	.85	.73	.73	1.3	22	42	11	6.3	2.2
13	2.0	1.6	1.3	.85	.73	.73	1.8	23	39	10	5.9	2.4
14	2.1	1.6	1.3	.85	.73	.73	2.4	24	36	10	5.7	2.3
15	2.2	1.6	1.3	.85	.73	.73	2.5	24	34	9.8	5.2	2.2
16	2.2	1.6	1.3	.85	.73	.73	2.5	22	33	9.6	5.0	2.1
17	2.2	1.5	1.3	.85	.73	.73	2.2	23	32	9.0	4.8	2.0
18	2.1	1.4	1.3	.85	.73	.73	2.1	26	31	8.6	4.6	2.0
19	2.2	1.3	1.3	.85	.73	.73	1.8	30	31	8.6	4.4	2.2
20	2.2	1.3	1.3	.79	.73	.73	1.8	33	31	9.4	4.4	2.1
21	2.0	1.3	1.3	.79	.73	.67	1.6	36	32	8.4	4.0	2.0
22	1.8	1.3	1.3	.73	.73	.67	1.6	38	31	7.0	4.0	2.0
23	1.4	1.3	1.1	.73	.73	.67	1.6	39	33	6.3	3.9	2.1
24	.98	1.3	1.1	.73	.73	.67	1.6	42	30	5.9	3.7	2.3
25	1.1	1.4	1.1	.73	.73	.61	1.6	44	27	5.4	3.7	2.6
26	1.2	1.4	1.1	.73	.73	.56	2.2	44	25	5.2	3.4	3.0
27	1.2	1.4	1.0	.73	.73	.51	2.5	44	23	5.2	3.2	2.6
28	1.1	1.5	.98	.73	.73	.51	2.5	44	21	5.0	3.1	2.3
29	1.2	1.5	.98	.73	.73	.51	2.5	44	21	4.6	2.8	2.2
30	1.6	1.5	.98	.73	---	.51	2.0	43	20	4.4	2.8	2.0
31	1.8	---	.98	.73	---	.46	---	43	---	4.2	2.7	---
TOTAL	55.78	46.3	37.82	26.64	20.78	20.10	45.61	783.5	1038	311.6	193.3	69.6
MEAN	1.80	1.54	1.22	.86	.72	.65	1.52	25.3	34.6	10.1	6.24	2.32
MAX	2.2	1.8	1.4	1.0	.79	.73	2.5	44	43	18	16	3.0
MIN	.98	1.3	.98	.73	.31	.37	.46	2.3	20	4.2	2.7	2.0
AC-FT	111	92	75	53	41	40	90	1550	2060	618	383	138

CAL YR 1975 TOTAL 5295.51 MEAN 14.5 MAX 157 MIN .56 AC-FT 10500
WTR YR 1976 TOTAL 2649.03 MEAN 7.24 MAX 44 MIN .31 AC-FT 5250

06299480 WOLF CREEK BELOW ALDEN CREEK, NEAR WOLF, WY

LOCATION.--Lat 44°45'36", long 107°15'53", in SW¼NW¼NE¼ sec.7, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, on left bank 0.5 mi (0.8 km) upstream from forest boundary, 1.2 mi (1.9 km) west of Wolf, and 1.5 mi (2.4 km) downstream from Alden Creek.

DRAINAGE AREA.--32.8 mi² (85.0 km²).

PERIOD OF RECORD.--October 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,360 ft (1,634 m), from topographic map.

REMARKS.--Records fair except those for December to March, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 483 ft³/s (13.7 m³/s) June 21, 1975, gage height, 4.45 ft (1.356 m); minimum daily, 3.0 ft³/s (0.085 m³/s) Mar. 3, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 187 ft³/s (5.30 m³/s) June 6, gage height, 2.68 ft (0.817 m); minimum daily, 3.0 ft³/s (0.085 m³/s) Mar. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.2	7.9	6.0	4.5	4.0	3.6	3.7	13	160	63	31	7.6
2	8.2	7.9	5.8	4.5	4.2	2.9	4.0	16	162	59	49	7.2
3	7.9	8.5	5.8	4.5	4.0	2.8	3.7	19	166	56	38	6.9
4	7.6	8.5	5.8	4.5	3.5	3.2	4.2	24	171	52	24	6.6
5	7.6	7.6	5.6	4.5	3.0	3.5	5.2	28	172	48	21	6.6
6	7.6	7.6	5.4	4.5	3.5	3.6	6.2	26	176	47	19	6.2
7	7.6	7.2	5.4	4.5	4.0	3.6	7.9	26	156	48	18	11
8	7.6	5.9	5.4	4.2	4.5	3.7	7.6	33	144	42	17	10
9	7.9	5.4	5.4	4.5	4.2	3.7	8.5	44	128	39	16	8.9
10	8.5	7.2	5.4	4.7	4.1	3.5	10	52	116	37	16	8.6
11	8.2	7.2	5.4	4.7	4.0	3.3	9.6	71	106	35	16	8.4
12	7.9	6.6	5.2	4.5	4.0	3.1	12	71	101	33	16	9.0
13	8.2	6.9	5.0	4.5	3.9	3.5	15	75	89	32	16	10
14	8.2	6.6	4.6	4.2	3.9	3.5	15	93	88	32	14	9.0
15	8.5	6.6	4.8	4.5	3.9	3.4	13	96	97	29	14	8.4
16	8.9	6.6	4.6	4.7	3.8	3.6	14	89	106	27	12	8.0
17	8.9	6.2	5.0	4.7	3.8	3.7	11	98	101	25	12	7.9
18	9.6	6.2	5.2	4.5	3.8	3.7	12	120	89	24	11	7.9
19	8.9	5.2	5.2	4.2	3.8	3.7	10	132	100	24	13	8.8
20	8.2	3.2	4.9	4.5	3.8	3.4	9.2	153	107	24	11	8.4
21	7.9	4.5	4.9	4.5	3.7	3.6	9.2	159	111	23	10	7.6
22	6.9	5.2	4.9	4.5	3.6	3.6	9.2	164	106	21	9.6	7.2
23	5.4	6.0	4.7	4.2	3.7	3.6	9.2	165	117	20	9.2	8.5
24	6.2	6.0	4.7	3.7	3.7	3.4	9.6	169	96	19	9.6	9.2
25	10	5.6	4.7	3.4	3.7	3.5	11	168	88	18	9.6	12
26	10	5.2	4.7	3.5	3.6	3.5	14	159	84	18	8.9	17
27	9.2	5.4	4.7	3.8	3.7	3.5	12	160	77	18	9.6	14
28	8.2	5.4	4.5	3.7	3.6	3.7	11	169	72	17	8.5	10
29	8.2	4.6	4.5	3.7	3.6	3.5	11	182	70	16	8.2	9.2
30	8.5	4.8	4.7	4.0	---	3.5	11	169	66	15	7.9	8.5
31	8.5	---	4.2	4.0	---	3.5	---	159	---	16	7.9	---
TOTAL	253.2	187.7	157.1	132.9	110.6	107.9	289.0	3102	3422	977	483.0	268.6
MEAN	8.17	6.26	5.07	4.29	3.81	3.48	9.63	100	114	31.5	15.6	8.95
MAX	10	8.5	6.0	4.7	4.5	3.7	15	182	176	63	49	17
MIN	5.4	3.2	4.2	3.4	3.0	2.8	3.7	13	66	15	7.9	6.2
AC-FT	502	372	312	264	219	214	573	6150	6790	1940	958	533

CAL YR 1975 TOTAL 16020.8 MEAN 43.9 MAX 461 MIN 3.2 AC-FT 31780
WTR YR 1976 TOTAL 9491.0 MEAN 25.9 MAX 182 MIN 2.8 AC-FT 18830

06299490 WOLF CREEK ABOVE RED CANYON CREEK, AT WOLF, WY

LOCATION.--Lat 44°45'54", long 107°14'48", in NE¼SE¼SW¼ sec.5, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on left bank 0.4 mi (0.6 km) upstream from Red Canyon Creek, 0.5 mi (0.8 km) downstream from Bighorn National Forest boundary, and 0.6 mi (1.0 km) southwest of Wolf.

DRAINAGE AREA.--33.8 mi^2 (87.5 km^2).

PERIOD OF RECORD.--October 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 4,700 ft (1,433 m), from topographic map.

REMARKS.--Records good except those for period of no gage-height record, Feb. 4 to Mar. 8, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 480 ft^3/s (13.6 m^3/s) June 21, 1975, gage height, 3.2 ft (0.98 m), from floodmark; minimum daily, 2.8 ft^3/s (0.079 m^3/s) Mar. 3, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 215 ft^3/s (6.09 m^3/s) June 6, gage height, 2.65 ft (0.808 m), minimum daily, 2.8 ft^3/s (0.079 m^3/s) Mar. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	6.8	5.0	6.8	6.6	4.4	4.8	13	141	63	28	9.4
2	8.8	7.1	5.0	6.8	6.6	4.0	4.8	15	143	62	47	8.8
3	8.8	8.0	5.0	6.8	6.6	3.0	4.6	18	148	58	37	8.8
4	8.8	7.7	5.0	6.8	5.4	3.1	4.8	22	151	54	23	8.5
5	8.5	7.4	5.0	6.8	5.0	3.1	5.5	25	151	49	20	8.5
6	8.2	7.7	5.0	6.8	5.6	3.2	6.4	24	153	48	19	8.2
7	8.0	8.5	5.0	6.4	6.5	4.0	7.7	24	138	47	18	12
8	7.7	6.1	5.0	6.8	6.1	4.4	6.8	30	131	42	17	11
9	7.7	5.3	5.0	6.8	6.1	4.4	8.0	38	120	39	16	9.7
10	8.0	5.3	5.0	6.8	6.1	4.4	8.8	45	109	37	16	8.8
11	8.0	5.5	6.0	6.6	6.1	4.4	8.5	58	101	35	16	8.5
12	7.7	5.9	6.0	6.6	6.1	4.4	10	58	96	34	16	9.1
13	7.7	5.9	6.0	6.6	6.1	4.2	12	62	89	33	15	10
14	7.7	5.9	6.0	6.4	6.1	4.2	12	82	87	31	14	9.1
15	7.7	5.9	7.0	6.4	6.1	4.2	12	89	92	30	14	8.5
16	7.4	5.9	7.0	6.4	5.7	4.2	12	82	103	28	13	8.2
17	7.4	5.9	7.0	6.4	5.9	4.2	10	87	96	26	12	8.0
18	7.4	5.9	7.0	6.4	5.7	4.4	10	105	89	24	12	8.0
19	7.4	5.9	7.0	6.4	5.0	4.6	10	122	94	24	14	8.8
20	7.4	5.9	7.0	6.8	5.5	4.4	9.1	136	101	24	12	8.5
21	7.4	5.9	6.8	6.6	5.5	4.2	9.4	143	107	24	12	8.0
22	7.4	5.9	6.8	6.6	5.7	4.4	9.1	148	101	21	12	7.7
23	7.7	5.9	6.8	6.6	5.5	4.4.	9.4	151	109	20	11	8.5
24	7.1	5.9	6.8	6.4	5.5	4.4	9.7	151	92	18	11	9.1
25	6.8	5.9	6.8	6.1	5.5	4.4	11	151	89	18	11	11
26	6.8	5.7	6.8	6.8	5.5	4.4	13	143	83	18	11	16
27	6.8	5.7	6.8	6.8	5.4	4.4	12	141	75	18	12	13
28	6.8	5.7	6.8	6.6	5.0	4.4	12	148	72	17	11	10
29	6.8	5.4	6.8	6.6	4.8	4.4	12	156	69	16	9.7	9.1
30	6.8	5.2	6.8	6.6	---	4.4	12	148	66	16	9.7	8.5
31	6.8	---	6.8	6.6	---	4.4	---	143	---	16	9.7	---
TOTAL	236.3	185.7	190.8	204.9	167.3	129.4	277.4	2758	3196	990	499.1	281.3
MEAN	7.62	6.19	6.15	6.61	5.77	4.17	9.25	89.0	107	31.9	16.1	9.38
MAX	8.8	8.5	7.0	6.8	6.6	4.6	13	156	153	63	47	16
MIN	6.8	5.2	5.0	6.1	4.8	3.0	4.6	13	66	16	9.7	7.7
AC-FT	469	368	378	406	332	257	550	5470	6340	1960	990	558

CAL YR 1975 TOTAL 15916.1 MEAN 43.6 MAX 450 MIN 3.8 AC-FT 31570
WTR YR 1976 TOTAL 9116.2 MEAN 24.9 MAX 156 MIN 3.0 AC-FT 18080

06299500 WOLF CREEK AT WOLF, WY

LOCATION.--Lat 44°46'21", long 107°14'01", in NE¼SW¼NW¼ sec.4, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on left bank at Wolf and 0.5 mi (0.8 km) downstream from Red Canyon Creek.

DRAINAGE AREA.--37.8 mi^2 (97.9 km^2).

PERIOD OF RECORD.--January 1945 to current year (no winter records since 1971). Monthly discharge for January to March 1945, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 4,525 ft (1,379 m), from topographic map. Prior to May 26, 1945, nonrecording gage at same site and datum.

REMARKS.--Records fair. No diversion above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--26 years (water years 1946-71), 29.3 ft^3/s (0.830 m^3/s), 21,230 acre-ft/yr (26.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,130 ft^3/s (32.0 m^3/s) June 15, 1963, gage height, 4.60 ft (1.402 m), from rating curve extended above 500 ft^3/s (14.2 m^3/s); no flow for part of each day Jan. 13, 15, 29, 30, Feb. 26, 1947, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 5.0 ft (1.52 m) May 18, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 180 ft^3/s (5.10 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	(m^3/s)	Gage height (ft)	(m)
June 6	0100	*217	6.15	2.57	0.783

Minimum daily discharge during period of operation, 4.1 ft^3/s (0.12 m^3/s) Apr. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							4.1	16	154	65	32	9.4
2							4.6	19	156	62	46	9.0
3							4.2	21	164	60	39	8.6
4							5.2	25	166	55	25	8.6
5							6.4	28	171	51	22	8.3
6							7.6	26	178	48	21	8.0
7							8.6	26	154	48	19	13
8							8.3	29	141	45	18	12
9							10	36	124	41	17	11
10							12	42	111	38	17	9.8
11							11	53	98	37	17	9.0
12							13	53	92	36	17	9.8
13							16	55	82	35	16	11
14							16	76	82	34	16	9.4
15							14	86	91	32	15	8.6
16							15	74	99	30	14	8.0
17							12	82	96	29	14	7.7
18							13	101	86	28	14	7.7
19							12	126	94	28	14	9.0
20							11	145	100	28	13	9.0
21							11	154	104	28	12	8.0
22							10	158	101	25	12	7.7
23							12	158	108	24	12	9.0
24							11	156	94	22	12	9.8
25							13	162	89	21	12	12
26							16	151	86	21	11	17
27							15	151	77	21	12	14
28							14	160	74	19	11	12
29							14	173	71	19	11	11
30							14	162	69	18	10	9.8
31							---	154	---	21	9.8	---
TOTAL							334.0	2858	3312	1069	530.8	297.2
MEAN							11.1	92.2	110	34.5	17.1	9.91
MAX							16	173	178	65	46	17
MIN							4.1	16	69	18	9.8	7.7
AC-FT							662	5670	6570	2120	1050	589

06299980 TONGUE RIVER AT MONARCH, WY

LOCATION.--Lat 44°54'08", long 107°01'49", in NW¼SW¼NW¼ sec.20, T.57 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, at bridge on county road at Monarch, 0.6 mi (1.0 km) usptream from South Dry Creek, and 1.0 mi (1.6 km) usptream from bridge on Interstate Highway 90.

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT											
04...	0900	66	490	8.1	11.0	7	9.0	1.0	230	27	50
NOV											
08...	1000	82	480	8.1	4.0	4	11.4	1.5	230	32	55
DEC											
06...	0930	110	540	8.1	1.0	3	10.4	1.7	240	48	55
JAN											
10...	1030	237	440	7.8	.5	3	11.2	1.2	230	32	55
FEB											
07...	1030	90	640	7.9	.0	3	11.6	1.7	300	55	67
MAR											
08...	0945	62	540	8.1	1.0	2	11.9	2.3	260	60	58
APR											
10...	1030	74	530	8.0	9.0	16	11.4	3.9	230	38	51
MAY											
07...	1630	162	420	8.1	12.5	6	11.0	4.4	180	29	40
JUN											
13...	0900	1050	225	7.9	11.0	10	8.7	2.4	120	17	28
JUL											
11...	1030	205	300	8.0	21.0	2	8.0	2.1	140	6	34
AUG											
06...	1745	135	380	8.1	22.0	9	9.4	3.2	190	27	45
11...	0830	148	415	8.2	16.0	4	8.8	--	200	27	45
SEP											
04...	1030	64	500	8.0	16.5	3	8.2	2.8	250	54	56

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
OCT											
04...	26	15	.4	1.8	250	0	205	69	1.7	.2	6.4
NOV											
08...	22	16	.5	1.6	239	0	196	69	1.6	.2	5.8
DEC											
06...	25	29	.8	2.2	234	0	192	97	2.2	.2	7.3
JAN											
10...	22	14	.4	1.7	239	0	196	63	2.2	.3	7.3
FEB											
07...	32	25	.6	2.5	298	0	244	110	3.6	.2	7.8
MAR											
08...	29	23	.6	2.1	249	0	204	92	1.9	.2	6.8
APR											
10...	24	19	.6	2.0	229	0	188	86	2.1	.2	5.0
MAY											
07...	20	20	.6	2.1	187	0	153	62	1.6	.2	6.1
JUN											
13...	12	12	.5	1.5	125	0	103	24	2.6	.1	7.3
JUL											
11...	14	6.4	.2	1.2	166	0	136	28	.8	.2	6.7
AUG											
06...	19	15	.5	1.9	199	0	163	50	1.2	.2	7.3
11...	21	11	.3	1.6	210	0	172	59	1.4	.2	6.9
SEP											
04...	27	19	.5	2.7	240	0	197	60	1.9	.2	6.3

06299980 TONGUE RIVER AT MONARCH, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 04...	.51	.01	--	60	40	3.7	--	--	--	--
NOV 08...	.27	.01	--	40	10	--	--	--	--	--
DEC 06...	.40	.00	--	60	60	--	--	--	--	--
JAN 10...	.71	.00	--	30	0	2.9	--	--	--	--
FEB 07...	.64	.00	--	70	20	--	--	--	--	--
MAR 08...	.57	.00	--	60	10	--	--	--	--	--
APR 10...	.88	.02	--	50	20	3.1	--	--	--	--
MAY 07...	1.0	.05	--	350	30	--	--	--	--	--
JUN 13...	.45	.04	--	20	30	--	--	--	--	--
JUL 11...	.42	.01	--	40	20	12	--	--	--	--
AUG 06...	.93	.02	--	50	40	--	--	--	--	--
11...	.22	.02	.02	50	20	--	360	.4	36	14
SEP 04...	.54	.00	--	60	20	--	--	--	--	--

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)
OCT 04...	294	.40	52.4	.01	--	.01	--	.49	--	.50	--
NOV 08...	289	.39	64.0	.05	--	.00	--	.22	--	.22	--
DEC 06...	333	.45	98.9	.17	--	.04	--	.19	--	.23	--
JAN 10...	283	.38	181	.24	--	.04	--	.43	--	.47	--
FEB 07...	395	.54	96.0	.24	--	.03	--	.37	--	.40	--
MAR 08...	336	.46	56.2	.11	--	.00	--	.46	--	.46	--
APR 10...	302	.41	60.3	.08	--	.08	--	.72	--	.80	--
MAY 07...	245	.33	107	.13	--	.13	--	.75	--	.88	--
JUN 13...	149	.20	422	.05	--	.08	--	.32	--	.40	--
JUL 11...	173	.24	95.8	.10	--	.03	--	.29	--	.32	--
AUG 06...	238	.32	86.8	.13	--	.05	--	.75	--	.80	--
11...	250	.34	99.9	.07	.01	.00	.02	.15	.42	.15	.44
SEP 04...	292	.40	50.5	.07	--	.00	--	.47	--	.47	--

06299980 TONGUE RIVER AT MONARCH, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	SUS-PENDED ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	SUS-PENDED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)
OCT 04...	0900	130	120	10	0	0	0	<10	0	<10	0	0
JAN 10...	1030	120	110	10	0	0	0	10	0	10	0	0
APR 10...	1030	150	150	0	1	0	1	0	0	0	<10	<8
JUL 11...	1030	310	300	10	1	1	0	0	0	0	<10	<10
AUG 11...	0830	270	--	10	3	--	3	0	--	0	10	--

DATE	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)
OCT 04...	0	10	0	10	0	0	0	150	0	0	0
JAN 10...	0	0	0	0	10	10	0	140	<100	<99	1
APR 10...	2	0	0	0	10	9	1	220	<100	<98	2
JUL 11...	0	0	0	0	<10	<9	1	400	<100	<99	1
AUG 11...	0	0	--	0	<10	--	0	300	<100	--	0

DATE	TOTAL LITHIUM (LI) (UG/L)	SUS-PENDED LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	SUS-PENDED MOLYB-DENUM (MO) (UG/L)
OCT 04...	10	0	10	30	20	10	.0	.0	.0	2	1
JAN 10...	3	3	0	20	10	10	.0	.0	.0	2	1
APR 10...	20	10	10	40	10	30	.0	.0	.0	0	0
JUL 11...	10	0	10	30	30	0	.0	.0	.0	0	0
AUG 11...	10	--	10	20	--	20	.0	--	.0	0	--

DATE	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	SUS-PENDED NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT 04...	1	<50	<50	0	0	0	0	1.0	10	0	10
JAN 10...	1	<50	<50	0	1	1	0	.5	10	0	10
APR 10...	0	<50	<48	2	0	0	0	.8	40	30	10
JUL 11...	0	<50	<50	0	0	0	0	.8	20	20	0
AUG 11...	0	<50	--	2	0	--	0	--	0	--	0

06299980 TONGUE RIVER AT MONARCH, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 11,76
TIME	0830
TOTAL CELLS/ML	360
DIVERSITY: DIVISION	0.5
.CLASS	0.5
..ORDER	0.5
...FAMILY	2.9
....GENUS	3.2

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..ZYGNEMATALES		
...DESMIDIACEAE		
....COSMARIUM	12	4
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	12	4
....COCCONEIS	41	12
...CYMBELLACEAE		
....CYMBELLA	82#	23
....EPITHEMIA	12	4
...DIATOMACEAE		
....DIATOMA	12	4
...FRAGILARIACEAE		
....FRAGILARIA	12	4
....SYNEDRA	18	5
...GOMPHONEMATACEAE		
....GOMPHONEMA	24	7
...NAVICULACEAE		
....NAVICULA	59#	17
...NITZSCHIACEAE		
....NITZSCHIA	65#	18
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....TRACHELOMONAS	18	5

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06299980 TONGUE RIVER AT MONARCH, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

AUG. 11, 1976
0830 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME	_COMMON__NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...OCCYSTACEAE	
O	....ANKISTRODESMUS	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
E	....CLADOPHORA	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....CLOSTERIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
E	....COCCONEIS	
	...CYMBELLACEAE	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....GYROSIGMA	
O	....NAVICULA	
O	....NEIDIUM	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...SURIRELLACEAE	
	....CYMATOPLEURA	
O	....SURIRELLA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHAMAESIPHONACEAE	
O	....CHAMAESIPHON	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....LYNGBYA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....EUGLENA	
O	....PHACUS	

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06300500 EAST FORK BIG GOOSE CREEK NEAR BIG HORN, WY

LOCATION.--Lat 44°32'18", long 107°13'33", in SE¼SE¼NW¼ sec.28, T.53 N., R.86 W., Johnson County, Hydrologic Unit 10090101, Bighorn National Forest, on right bank 0.7 mi (1.1 km) upstream from Park Reservoir and 16 mi (26 km) southwest of Big Horn.

DRAINAGE AREA.--20.1 mi² (52.1 km²).

PERIOD OF RECORD.--October 1953 to current year (no winter records since 1973). Prior to October 1960, published as East Goose Creek near Big Horn.

GAGE.--Water-stage recorder. Altitude of gage is 8,320 ft (2,536 m), from topographic map. Prior to June 28, 1960, water-stage recorder at site 1.1 mi (1.8 km) downstream at different datum. June 28, 1960, to July 14, 1970, water-stage recorder at site 0.9 mi (1.4 km) downstream at different datums and July 15 to Oct. 7, 1970, nonrecording gage at present site and datum.

REMARKS.--Records fair. No diversion above station.

AVERAGE DISCHARGE.--20 years (water years 1954-73), 32.6 ft³/s (0.923 m³/s), 23,620 acre-ft/yr (29.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft³/s (34.8 m³/s) June 15, 1963, gage height, 4.59 ft (1.399 m), site and datum then in use, from rating curve extended above 250 ft³/s (7.08 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 1.0 ft³/s (0.03 m³/s) Dec. 11-14, 1963, Mar. 24, 25, Nov. 14, 15, 1964, Mar. 18, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s (5.10 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 7	0100	*492	13.9	5.43	1.655
June 22	0100	273	7.73	4.75	1.448
July 1	2400	244	6.91	4.63	1.411

Minimum daily discharge during period of operation, 3.2 ft³/s (0.091 m³/s) May 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								3.2	230	210	27	9.6
2								3.2	290	167	47	8.8
3								4.6	329	114	50	8.1
4								6.1	335	116	38	7.9
5								6.1	321	117	32	7.5
6								5.7	369	122	28	7.3
7								5.8	359	123	24	16
8								6.8	286	104	21	18
9								11	241	100	20	14
10								14	214	95	20	12
11								13	182	89	19	11
12								20	155	83	18	10
13								24	107	79	17	11
14								36	94	65	16	11
15								34	80	56	15	11
16								38	89	51	14	10
17								54	82	47	13	9.6
18								67	68	45	12	9.6
19								124	74	46	15	14
20								187	118	43	14	15
21								183	210	40	13	13
22								172	222	37	12	12
23								152	210	35	11	20
24								139	122	34	11	22
25								197	92	34	11	21
26								180	84	31	11	24
27								169	72	30	14	22
28								222	78	29	12	20
29								288	106	27	11	18
30								231	145	25	10	16
31								185	---	24	10	---
TOTAL								2781.5	5364	2218	586	409.4
MEAN								89.7	179	71.5	18.9	13.6
MAX								288	369	210	50	24
MIN								3.2	68	24	10	7.3
AC-FT								5520	10640	4400	1160	812

06301500 WEST FORK BIG GOOSE CREEK NEAR BIG HORN, WY

LOCATION.--Lat 44°36'47", long 107°17'49", Sheridan County, Hydrologic Unit 10090101, Bighorn National Forest, on left bank 0.3 mi (0.5 km) downstream from Twin Lakes Branch and 16 mi (26 km) west of Big Horn.

DRAINAGE AREA.--24.4 mi² (63.2 km²).

PERIOD OF RECORD.--October 1953 to current year (no winter records since 1971). Prior to October 1960, published as West Goose Creek near Big Horn.

GAGE.--Water-stage recorder. Altitude of gage is 8,420 ft (2,566 m), from topographic map.

REMARKS.--Records fair except those for September, which are poor. Some regulation by Twin Lakes, capacity, 1,200 acre-ft (1.48 hm³) and Dome Lake, capacity, 1,800 acre-ft (2.22 hm³). No diversion above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--18 years (water years 1954-71), 34.4 ft³/s (0.974 m³/s), 24,920 acre-ft/yr (30.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,030 ft³/s (29.2 m³/s) June 15, 1963, gage height, 5.37 ft (1.637 m), from rating curve extended above 410 ft³/s (11.6 m³/s) on basis of velocity-area study; minimum daily, 0.80 ft³/s (0.023 m³/s) Dec. 14, 26, 1963, Jan. 15, 16, Feb. 26, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 458 ft³/s (13.0 m³/s) June 6, gage height, 4.04 ft (1.231 m); minimum daily during period of operation, 3.7 ft³/s (0.10 m³/s) May 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								3.7	254	186	45	30
2								3.7	275	191	48	29
3								3.8	289	140	54	29
4								4.0	355	124	56	29
5								4.2	404	118	60	28
6								4.1	425	117	63	28
7								4.2	416	123	50	31
8								4.6	393	113	46	30
9								5.1	337	101	40	30
10								6.0	296	92	35	25
11								6.6	260	87	38	27
12								6.6	234	78	33	29
13								15	210	70	33	28
14								25	201	61	38	28
15								20	189	60	37	28
16								20	145	57	36	27
17								23	64	52	35	27
18								35	57	48	35	30
19								45	57	46	36	29
20								58	57	46	36	27
21								70	93	45	36	23
22								84	189	41	34	23
23								96	234	46	33	19
24								98	160	56	32	19
25								98	127	55	31	18
26								106	120	53	31	25
27								117	106	48	31	23
28								146	77	48	33	21
29								221	51	49	33	26
30								216	124	45	31	25
31								217	---	45	31	---
TOTAL								1766.6	6199	2441	1210	791
MEAN								57.0	207	78.7	39.0	26.4
MAX								221	425	191	63	31
MIN								3.7	51	41	31	18
AC-FT								3500	12300	4840	2400	1570

06302000 BIG GOOSE CREEK NEAR SHERIDAN, WY

LOCATION.--Lat 44°42'08", long 107°10'51", in NW¼NE¼ sec.35, T.55 N., R.86 W., Sheridan County, Hydrologic Unit 10090101, on right bank 0.4 mi (0.6 km) upstream from Cave Creek and 14 mi (23 km) southwest of Sheridan.

DRAINAGE AREA.--120 mi^2 (311 km^2).

PERIOD OF RECORD.--September 1929 to current year (no winter records since 1971). Prior to October 1960, published as Goose Creek near Sheridan. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1006: Drainage area. WSP 1509: 1930(M), 1931.

GAGE.--Water-stage recorder. Altitude of gage is 4,505 ft (1,375 m), from topographic map.

REMARKS.--Records fair. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation of about 20 acres (8.1 hm^2) and to Sheridan Filtration plant, and return flow from irrigated areas. PK ditch diverts water 0.6 mi (1.0 km) above station for irrigation of lands downstream from station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--42 years (water years 1930-71), 79.6 ft^3/s (2.254 m^3/s), 57,670 acre-ft/yr (71.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,160 ft^3/s (89.5 m^3/s) June 15, 1963, gage height, 5.83 ft (1.777 m), from rating curve extended above 1,600 ft^3/s (45.3 m^3/s); minimum daily, 1.6 ft^3/s (0.045 m^3/s) Nov. 29, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 855 ft^3/s (24.2 m^3/s) June 8, gage height, 3.64 ft (1.109 m); minimum daily during period of operation, 16 ft^3/s (0.45 m^3/s) Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							21	30	525	243	34	29
2							21	35	550	306	62	28
3							20	41	560	234	65	28
4							21	54	625	194	54	29
5							21	62	700	163	51	30
6							22	55	754	144	55	30
7							23	49	796	183	41	39
8							22	62	827	150	33	35
9							24	70	834	118	28	30
10							26	68	748	97	27	26
11							26	90	595	89	29	26
12							33	80	382	82	24	28
13							36	104	316	68	24	30
14							34	161	320	67	30	24
15							35	148	312	48	28	23
16							37	131	302	46	26	21
17							33	142	194	37	21	21
18							30	169	161	32	21	24
19							27	197	142	31	36	25
20							24	227	134	30	34	23
21							23	234	192	27	33	17
22							23	243	362	23	32	16
23							23	251	505	24	30	18
24							22	257	400	43	29	19
25							26	312	237	42	30	28
26							32	289	206	39	30	42
27							31	274	159	32	37	38
28							25	259	129	27	36	33
29							27	376	82	29	33	39
30							24	422	134	26	32	36
31							---	486	---	26	30	---
TOTAL							792	5378	12183	2700	1075	835
MEAN							26.4	173	406	87.1	34.7	27.8
MAX							37	486	834	306	65	42
MIN							20	30	82	23	21	16
AC-FT							1570	10670	24160	5360	2130	1660

06303500 LITTLE GOOSE CREEK IN CANYON, NEAR BIG HORN, WY

LOCATION.--Lat 44°35'46", long 107°02'22", in SE¼SW¼NE¼ sec.1, T.53 N., R.85 W., Sheridan County, Hydrologic Unit 10090101, on left bank 100 ft (30 m) upstream from headgate of Lower Peralta ditch and 6.5 mi (10.5 km) southwest of Big Horn.

DRAINAGE AREA (REVISED).--51.6 mi^2 (133.6 km^2).

PERIOD OF RECORD.--April 1941 to current year (no winter records since 1971).

GAGE.--Water-stage recorder. Altitude of gage is 4,860 ft (1,481 m), from topographic map.

REMARKS.--Records good. Three small reservoirs above station, combined capacity, 860 acre-ft (1.06 hm^3), two of which store some imported water. Water imported into drainage basin above station from East Goose Creek basin is diverted below station for irrigation.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--30 years (water years 1942-71), 63.4 ft^3/s (1.795 m^3/s), 45,930 acre-ft/yr (56.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,350 ft^3/s (38.2 m^3/s) June 15, 1963, gage height, 6.78 ft (2.067 m), from rating curve extended above 900 ft^3/s (25.5 m^3/s); minimum recorded, 2.2 ft^3/s (0.062 m^3/s) Dec. 4, 1949, gage height, 0.71 ft (0.216 m).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 420 ft^3/s (11.9 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 6	2230	*435	12.3	4.07	1.241

Minimum daily discharge during period of operation, 20 ft^3/s (0.57 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							22	36	247	245	139	96
2							22	39	261	235	150	85
3							21	44	271	223	138	84
4							22	53	280	214	128	84
5							22	62	290	195	126	81
6							23	62	345	177	124	81
7							24	64	321	178	117	92
8							23	75	272	174	114	86
9							25	93	218	164	113	79
10							28	105	195	155	104	77
11							27	124	201	147	100	72
12							32	118	230	137	99	72
13							36	120	220	118	99	75
14							35	144	223	109	93	64
15							34	164	228	101	90	59
16							37	150	235	100	89	53
17							36	148	235	100	94	54
18							37	164	226	92	95	61
19							34	188	223	91	100	65
20							32	216	240	101	97	61
21							32	228	285	90	95	51
22							31	245	331	94	95	49
23							32	240	332	91	94	50
24							31	231	283	90	98	51
25							33	235	265	85	98	52
26							37	231	258	94	99	59
27							37	225	240	121	101	55
28							36	249	223	129	101	49
29							35	279	208	132	101	24
30							35	254	213	135	101	20
31							---	228	---	143	101	---
TOTAL							911	4814	7599	4260	3293	1941
MEAN							30.4	155	253	137	106	64.7
MAX							37	279	345	245	150	96
MIN							21	36	195	85	89	20
AC-FT							1810	9550	15070	8450	6530	3850

06305500 GOOSE CREEK BELOW SHERIDAN, WY

LOCATION.--Lat 44°49'25", long 106°57'40", in SE¼SW¼ sec.15, T.56 N., R.84 W., Sheridan County, Hydrologic Unit 10090101, on right bank 700 ft (213 m) north of Sheridan city limits and 0.2 mi (0.3 km) downstream from Soldier Creek.

DRAINAGE AREA.--392 mi^2 (1,015 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for October to December 1941, published in WSP 1309.

GAGE.--Water-stage recorder. Datum of gage is 3,701.36 ft (1,128.175 m) above mean sea level. Prior to Aug. 3, 1951, nonrecording gage at site 600 ft (183 m) upstream at datum 2.18 ft (0.664 m) lower.

REMARKS.--Records good except those for January, February, and August, which are poor. Some regulation by many small reservoirs, combined capacity, about 15,000 acre-ft (18.5 hm^3). Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--35 years, 183 ft^3/s (5.183 m^3/s), 132,600 acre-ft/yr (163 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,450 ft^3/s (154 m^3/s) June 16, 1963, gage height, 7.82 ft (2.384 m); maximum gage height, 9.11 ft (2.777 m) Feb. 28, 1972 (backwater from ice); minimum daily discharge, 4.0 ft^3/s (0.11 m^3/s) Aug. 11, 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 986 ft^3/s (27.9 m^3/s) June 7, gage height, 3.61 ft (1.100 m); minimum daily, 34 ft^3/s (0.96 m^3/s) July 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	112	100	37	84	79	76	126	583	383	78	48
2	72	108	96	64	86	60	80	130	605	500	114	41
3	70	106	96	79	80	69	78	139	620	435	148	37
4	70	106	96	79	64	83	76	155	693	356	141	37
5	70	105	96	82	60	74	78	186	746	312	186	37
6	78	106	96	80	70	83	82	186	878	245	144	38
7	82	103	99	60	80	84	98	178	935	290	110	55
8	85	103	105	80	90	86	98	180	909	255	92	71
9	88	98	98	90	90	91	90	211	888	207	87	74
10	87	89	95	100	90	95	94	220	777	170	77	72
11	94	97	98	90	86	92	96	255	636	143	75	70
12	101	92	92	84	86	65	99	262	435	125	78	77
13	115	99	85	86	84	92	109	245	353	132	77	91
14	118	104	67	84	84	85	115	301	482	116	72	88
15	113	100	84	80	84	77	111	364	484	94	69	89
16	101	98	93	86	84	79	138	326	483	83	65	84
17	96	96	77	88	80	86	161	315	442	71	60	79
18	93	101	95	88	80	94	134	301	373	58	60	76
19	90	97	93	86	80	94	122	330	356	51	66	86
20	94	70	89	86	80	80	111	372	351	48	63	91
21	98	74	87	88	76	78	113	387	378	51	54	92
22	117	90	85	90	86	77	108	419	619	45	51	85
23	131	109	84	90	88	77	103	411	831	39	46	81
24	116	106	85	80	84	75	101	415	782	34	47	88
25	111	106	94	60	83	76	99	435	554	36	51	99
26	125	94	93	60	89	75	122	430	482	43	54	144
27	142	110	99	80	97	75	178	381	407	40	64	166
28	124	98	93	92	89	80	165	361	352	42	70	145
29	112	77	88	92	79	80	148	474	280	46	64	131
30	116	72	96	88	---	76	130	541	280	51	50	117
31	118	---	85	84	---	78	---	546	---	62	50	---
TOTAL	3100	2926	2839	2513	2393	2495	3313	9582	16994	4563	2463	2489
MEAN	100	97.5	91.6	81.1	82.5	80.5	110	309	566	147	79.5	83.0
MAX	142	112	105	100	97	95	178	546	935	500	186	166
MIN	70	70	67	37	60	60	76	126	280	34	46	37
AC-FT	6150	5800	5630	4980	4750	4950	6570	19010	33710	9050	4890	4940

CAL YR 1975 TOTAL 94609 MEAN 259 MAX 2190 MIN 40 AC-FT 187700
WTR YR 1976 TOTAL 55670 MEAN 152 MAX 935 MIN 34 AC-FT 110400

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959-65, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT											
04...	1300	73	850	8.0	14.0	--	9.4	5.7	B1500	410	120
NOV											
08...	1300	104	730	8.4	5.0	9	13.6	4.3	32000	370	110
DEC											
05...	1500	A96	860	8.2	2.5	5	12.2	5.5	60000	350	88
JAN											
10...	0700	A100	800	7.7	1.0	2	10.6	4.0	B18000	370	99
FEB											
06...	1500	A70	770	8.0	.0	2	8.7	5.8	38000	450	160
MAR											
07...	1500	99	710	8.2	3.0	4	12.3	4.1	B18000	370	110
APR											
09...	1630	91	700	8.2	13.5	9	9.6	5.4	20000	300	93
MAY											
07...	1500	180	480	8.2	14.0	20	11.6	9.0	B17000	190	51
JUN											
12...	1500	447	215	8.0	13.0	15	8.9	4.8	1400	89	19
JUL											
11...	0730	139	470	7.8	21.0	3	7.0	3.4	--	210	62
AUG											
06...	1700	A144	710	8.3	23.0	40	8.0	5.8	31000	330	92
11...	1430	A75	730	8.6	24.0	1	10.9	--	--	360	110
SEP											
03...	1715	62	900	8.1	24.0	3	7.2	7.4	51000	360	97

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT											
04...	79	52	35	.8	4.0	360	0	295	180	6.5	.5
NOV											
08...	75	43	30	.7	2.6	320	0	263	150	5.6	.5
DEC											
05...	66	46	31	.7	3.3	320	0	263	160	8.1	.5
JAN											
10...	75	45	30	.7	2.3	330	0	271	160	4.5	.4
FEB											
06...	87	56	38	.8	3.3	360	0	295	210	5.2	.5
MAR											
07...	71	46	30	.7	2.6	310	6	264	170	5.2	.4
APR											
09...	60	37	26	.7	2.1	240	6	207	140	5.2	.4
MAY											
07...	40	23	16	.5	2.1	170	0	139	77	3.6	.3
JUN											
12...	18	11	7.0	.3	1.4	85	0	70	35	1.9	.1
JUL											
11...	40	27	20	.6	2.1	180	0	148	89	1.9	.3
AUG											
06...	61	44	27	.6	3.7	290	0	238	150	5.6	.5
11...	68	46	29	.7	3.7	281	10	247	150	3.6	.4
SEP											
03...	61	52	39	.9	4.0	320	0	262	180	11	.6

YELLOWSTONE RIVER BASIN
06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	SUS-PENDED SOLIDS (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)
OCT											
04...	7.0	545	.74	107	32	.84	.12	--	.82	--	.68
NOV											
08...	7.7	471	.64	132	20	.59	.06	--	.53	--	.97
DEC											
05...	8.4	479	.65	124	12	.18	.29	--	.82	--	.98
JAN											
10...	12	493	.67	133	9	.41	.52	--	.33	--	1.4
FEB											
06...	12	600	.82	113	1	1.5	.55	--	.64	--	1.2
MAR											
07...	9.2	494	.67	132	7	.25	.33	--	.52	--	.88
APR											
09...	7.2	406	.55	99.8	6	.07	.11	--	.43	--	.87
MAY											
07...	9.4	260	.35	126	25	.70	.09	--	.48	--	.82
JUN											
12...	7.0	124	.17	150	21	.09	.07	--	.22	--	.61
JUL											
11...	7.3	280	.38	105	16	.41	.67	--	.29	--	.91
AUG											
06...	11	443	.60	172	46	.75	.09	--	.20	--	.73
11...	7.3	457	.62	92.5	--	--	.10	.01	.00	.00	.50
SEP											
03...	5.2	520	.71	87.0	0	.20	.40	--	.01	--	.66

DATE	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	TOTAL BORON (B) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
OCT										
04...	--	1.5	--	1.6	.24	--	270	24	--	--
NOV										
08...	--	1.5	--	1.6	.15	--	--	--	--	--
DEC										
05...	--	1.8	--	2.1	.19	--	--	--	--	--
JAN										
10...	--	1.7	--	2.2	.16	--	110	4.9	--	--
FEB										
06...	--	1.8	--	2.4	.38	--	140	--	--	--
MAR										
07...	--	1.4	--	1.7	.21	--	170	--	--	--
APR										
09...	--	1.3	--	1.4	.28	--	100	4.6	--	--
MAY										
07...	--	1.3	--	1.4	.16	--	30	--	--	--
JUN										
12...	--	.83	--	.90	.10	--	40	--	--	--
JUL										
11...	--	1.2	--	1.9	.11	--	110	6.5	--	--
AUG										
06...	--	.93	--	1.0	.18	--	170	--	--	--
11...	.27	.50	.27	.60	.04	.03	--	--	3200	1.0
SEP										
03...	--	.67	--	1.1	.65	--	190	--	--	--

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	SUS-PENDED ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	SUS-PENDED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)
OCT												
04...	1300	180	160	20	0	0	0	<10	0	<10	--	0
JAN												
10...	0700	120	110	10	0	0	0	10	0	10	--	<10
APR												
09...	1630	120	120	0	0	0	0	0	0	0	--	<10
JUL												
11...	0730	350	320	30	1	1	0	0	0	10	--	<10
AUG												
11...	1430	140	--	10	1	--	1	0	--	0	120	<10

DATE	SUS-PENDED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)
OCT												
04...	0	0	10	0	10	10	8	2	300	10	0	0
JAN												
10...	<9	1	0	0	0	10	8	2	190	10	<100	<98
APR												
09...	<8	2	10	10	0	10	10	0	320	10	<100	<92
JUL												
11...	<10	0	0	0	0	10	7	3	440	60	<100	<99
AUG												
11...	--	0	0	--	0	<10	--	1	190	10	<100	--

YELLOWSTONE RIVER BASIN
06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	SUS-PENDED LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	SUS-PENDED MOLYB-DENUM (MO) (UG/L)
OCT												
04...	0	10	0	20	60	30	30	.0	.0	.0	2	1
JAN												
10...	2	10	0	20	50	10	40	.0	.0	.0	2	0
APR												
09...	8	20	0	20	70	10	60	.0	.0	.0	0	0
JUL												
11...	1	20	0	20	40	10	30	.0	.0	.2	0	0
AUG												
11...	0	20	--	30	30	--	10	.0	--	.0	0	--

DATE	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	SUS-PENDED NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT											
04...	1	<50	<50	0	1	0	1	1.0	10	0	10
JAN											
10...	2	<50	<48	2	1	0	1	.7	10	0	10
APR											
09...	0	<50	<49	1	1	0	1	1.0	10	10	0
JUL											
11...	1	<50	<48	2	0	0	0	.0	30	20	10
AUG											
11...	1	<50	--	3	1	--	1	--	10	--	0

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM
OCT								
22...	1645	6.0	124	9	3.0	--	--	--
NOV								
18...	0930	.5	103	18	5.0	--	--	--
DEC								
16...	1200	.0	91	14	3.4	--	--	--
JAN								
21...	0910	.5	A88	10	2.4	--	--	--
FEB								
25...	1300	2.5	87	18	4.2	--	--	--
MAR								
25...	0840	4.5	76	16	3.3	--	--	--
APR								
26...	1610	4.5	122	20	6.6	--	--	--
MAY								
25...	1745	8.5	435	97	114	--	--	--
JUN								
10...	0945	12.0	817	62	137	91	94	100
23...	1930	13.0	845	142	324	--	--	--
JUL								
22...	1030	21.0	A45	16	1.9	--	--	--
AUG								
04...	1445	21.0	A141	740	282	--	--	--
11...	1430	24.0	A75	35	7.1	--	--	--
24...	1635	22.5	A47	5	.63	--	--	--
SEP								
23...	0835	13.0	82	28	6.2	--	--	--

A Daily mean discharge.

DATE	TIME	NUMBER OF SAM-PLING POINTS	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
MAY								
25...	1745	--	8.5	435	2	4	9	14
JUN								
10...	0945	4	12.0	817	1	3	7	15
SEP								
23...	0835	--	13.0	82	3	7	9	17

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAY							
25...	21	28	36	49	72	95	100
JUN							
10...	27	37	47	55	67	81	100
SEP							
23...	25	30	36	44	52	68	100

06305500 GOOSE CREEK BELOW SHERIDAN, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 11,76
TIME	1430
TOTAL CELLS/ML	3200
DIVERSITY: DIVISION	0.9
.CLASS	0.9
..ORDER	1.0
...FAMILY	2.3
....GENUS	2.3

ORGANISM	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	61	2
...SCENEDESMACEAE		
....SCENEDESMUS	240	8
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	61	2
..PENNALES		
...ACHNANTHACEAE		
....COCCONEIS	180	6
...CYMBELLACEAE		
....EPITHEMIA	180	6
...FRAGILARIACEAE		
....FRAGILARIA	300	10
...NAVICULACEAE		
....NAVICULA	1700#	53
...NITZSCHIACEAE		
....NITZSCHIA	180	6
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..OSCILLATORIALES		
...RIVULARIACEAE		
....RAPHIDIOPSIS	300	10

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06306100 SQUIRREL CREEK NEAR DECKER, MT

LOCATION.--Lat 45°03'05", long 106°55'36", in NW¼NW¼ sec.14, T.9 S., R.39 E., Bighorn County, Hydrologic Unit 10090101, on left bank 0.4 mi (0.6 km) upstream from Powers Cormack ditch, 0.5 mi (0.8 km) northwest of C X Ranch, 4 mi (6 km) northwest of Decker, and 7 mi (11 km) upstream from mouth.

DRAINAGE AREA.--33.6 mi^2 (87.0 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,680 ft (1,122 m), from topographic map.

REMARKS.--Records fair except those for winter period and May and June, which are poor. Two small diversions above station.

EXTREMES FOR CURRENT PERIOD.--September 1975: Maximum discharge during period, 1.4 ft^3/s (0.040 m^3/s) Sept. 25-30, gage height, 1.62 ft (0.494 m); minimum, 1.2 ft^3/s (0.034 m^3/s) Sept. 6, 7, 10, 11, 17, 18.
Water year 1976: Maximum discharge, 12.0 ft^3/s (0.34 m^3/s) May 4, 5, 6, 7, gage height, 2.33 ft (0.710 m); minimum daily, 0.07 ft^3/s (0.027 m^3/s) Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, 1975

DAY	SEPT	DAY	SEPT	DAY	SEPT	DAY	SEPT	DAY	SEPT
1	1.3	8	1.3	15	1.3	22	1.3	29	1.4
2	1.3	9	1.4	16	1.3	23	1.3	30	1.4
3	1.3	10	1.2	17	1.2	24	1.3		
4	1.3	11	1.2	18	1.2	25	1.4		
5	1.3	12	1.3	19	1.3	26	1.4		
6	1.2	13	1.3	20	1.3	27	1.4		
7	1.2	14	1.3	21	1.3	28	1.4		

TOTAL	39.1
MEAN	1.30
MAX	1.4
MIN	1.2
AC-FT	78

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.0	1.6	1.6	2.8	1.0	5.8	10	4.3	2.9	.90	.10
2	1.4	2.1	1.6	1.6	2.5	1.0	5.9	10	4.1	2.8	1.6	.10
3	1.4	2.1	1.6	1.4	2.3	1.0	6.0	11	4.0	2.8	1.4	.09
4	1.3	2.1	1.7	1.6	1.3	1.0	6.0	12	4.0	2.8	1.3	.08
5	1.1	2.1	1.7	1.8	1.0	1.5	6.1	12	4.0	2.8	1.1	.07
6	1.1	2.1	1.7	2.0	1.2	1.5	6.0	12	4.0	2.7	1.1	.08
7	1.1	2.1	1.7	2.0	1.6	2.0	6.1	12	3.6	2.4	1.0	.08
8	1.2	2.1	1.7	2.0	2.0	2.3	6.1	11	2.8	2.4	.80	.14
9	1.6	1.6	1.6	2.0	2.2	3.3	6.3	10	2.5	2.3	.55	.31
10	1.9	1.6	1.4	2.0	2.4	4.3	6.3	10	2.5	2.2	.50	.35
11	1.6	1.7	1.4	2.0	2.8	4.1	6.4	9.6	2.5	2.0	.50	.31
12	1.6	1.1	1.4	2.0	3.0	4.5	6.4	9.6	2.5	1.8	.50	.28
13	1.6	1.9	1.2	2.0	3.9	6.0	6.5	9.6	2.5	1.8	.50	.28
14	1.6	2.0	1.2	2.0	3.7	7.0	6.5	9.6	2.5	2.0	.45	.35
15	1.6	2.0	1.0	2.0	3.4	7.5	6.7	9.6	3.0	1.6	.38	.35
16	1.6	2.0	1.0	2.0	2.9	7.0	6.7	8.5	5.0	1.5	.35	.35
17	1.6	2.0	1.0	2.0	3.5	6.5	6.8	7.0	4.8	1.4	.38	.31
18	1.7	1.9	1.2	2.0	3.1	6.0	8.0	7.0	4.6	1.5	.35	.24
19	1.7	1.4	1.2	2.1	2.1	5.8	8.7	7.7	4.4	1.5	.38	.24
20	1.6	.80	1.4	1.7	2.4	5.5	9.0	7.4	4.2	1.6	.38	.21
21	1.7	.60	1.4	2.5	1.9	5.5	9.0	6.4	4.0	1.3	.38	.28
22	1.9	.80	1.6	2.3	2.6	5.5	9.0	6.2	3.8	1.4	.31	.24
23	2.2	1.0	1.6	2.6	3.0	5.5	9.1	6.0	3.7	1.4	.21	.24
24	2.2	1.2	1.8	3.4	2.8	5.5	9.1	5.8	3.6	1.2	.14	.24
25	2.2	1.4	1.8	1.9	3.5	5.5	9.1	5.6	3.5	1.0	.14	.24
26	2.2	1.4	2.0	1.3	3.7	5.5	9.3	5.2	3.4	.95	.17	.24
27	2.2	1.4	2.0	1.4	3.6	5.5	9.3	5.0	3.3	.95	.21	.38
28	2.2	1.4	2.0	2.1	3.1	5.5	9.3	4.8	3.2	1.1	.28	.42
29	2.2	1.2	1.8	2.7	2.0	5.6	9.4	4.6	3.1	.90	.31	.45
30	2.0	1.0	1.8	3.7	---	5.7	9.4	4.5	3.0	.85	.28	.42
31	2.0	---	1.6	2.1	---	5.7	---	4.5	---	.80	.14	---
TOTAL	52.8	48.10	47.7	63.8	76.3	139.8	224.3	254.2	106.4	54.65	16.99	7.47
MEAN	1.70	1.60	1.54	2.06	2.63	4.51	7.48	8.20	3.55	1.76	.55	.25
MAX	2.2	2.1	2.0	3.7	3.9	7.5	9.4	12	5.0	2.9	1.6	.45
MIN	1.1	.60	1.0	1.3	1.0	1.0	5.8	4.5	2.5	.80	.14	.07
AC-FT	105	95	95	127	151	277	445	504	211	108	34	15

WTR YR 1976 TOTAL 1092.51 MEAN 2.99 MAX 12 MIN .07 AC-FT 2170

06306100 SQUIRREL CREEK NEAR DECKER, MT--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT												
06...	1230	1.1	1260	8.5	17.0	9.0	5	8.0	79	4.2	630	200
NOV												
10...	1230	1.5	1240	8.2	10.0	.5	2	11.0	87	1.2	630	190
DEC												
01...	1215	1.7	1340	8.0	4.0	.0	4	11.0	86	.2	660	200
JAN												
06...	1400	2.0	1220	8.0	-23.0	.0	4	11.2	88	1.0	630	200
FEB												
02...	1405	2.5	1110	8.0	12.0	.0	1	11.7	91	1.6	540	190
MAR												
01...	1245	.93	1240	8.3	-5.0	.0	1	11.1	87	1.3	610	220
APR												
05...	1200	6.1	990	8.0	19.0	8.5	10	11.6	114	.7	530	210
MAY												
03...	1300	11	915	8.3	19.0	12.0	60	10.2	109	1.1	490	190
JUN												
07...	1255	3.9	938	7.9	24.0	18.0	100	7.4	89	1.7	470	140
JUL												
06...	1215	2.7	970	8.0	25.0	19.0	40	7.4	91	1.2	490	170
AUG												
02...	1315	1.5	950	8.0	19.0	18.0	4	9.4	113	.8	490	160
30...	1210	.27	1120	8.5	25.0	16.0	20	8.2	95	.4	580	220

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
OCT											
06...	89	100	44	.8	10	527	0	380	3.1	.4	14
NOV											
10...	90	98	46	.8	8.1	539	0	300	4.0	.4	13
DEC											
01...	100	100	45	.8	7.1	557	0	380	6.1	.4	13
JAN											
06...	99	93	40	.7	7.0	525	0	300	4.0	.4	13
FEB											
02...	81	81	39	.7	6.8	401	8	280	7.4	.4	11
MAR											
01...	91	92	43	.8	6.5	472	0	300	1.0	.4	11
APR											
05...	86	77	26	.5	5.3	387	0	240	2.3	.3	8.0
MAY											
03...	88	66	22	.4	5.1	371	0	230	3.3	.4	8.9
JUN											
07...	68	73	29	.6	5.6	400	0	220	2.7	.3	9.3
JUL											
06...	67	79	27	.5	5.8	389	0	220	2.5	.5	11
AUG											
02...	71	77	29	.6	7.0	405	0	220	3.0	.3	10
30...	67	100	49	.9	8.3	415	13	310	4.0	.2	5.3

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)
OCT											
06...	841	1.14	2.50	.00	.01	.53	.54	.54	.07	140	180
NOV											
10...	826	1.12	3.35	.01	.02	.36	.38	.39	.01	90	60
DEC											
01...	866	1.18	3.97	.02	.03	.28	.31	.33	.00	110	30
JAN											
06...	815	1.11	4.40	.16	.04	.18	.22	.38	.02	80	20
FEB											
02...	713	.97	4.83	.17	.03	.58	.61	.78	.06	70	150
MAR											
01...	778	1.06	1.95	.15	.02	.27	.29	.44	.04	80	60
APR											
05...	636	.87	10.5	.13	.04	.52	.56	.69	.10	60	10
MAY											
03...	607	.83	18.0	.40	.00	.97	.97	1.4	.11	100	10
JUN											
07...	605	.82	6.37	.33	.01	.64	.65	.98	.13	70	90
JUL											
06...	605	.82	4.41	.57	.00	.50	.50	1.1	.08	100	10
AUG											
02...	617	.84	2.50	.35	.00	.60	.60	.95	.10	90	120
30...	762	1.04	.56	.09	.00	.37	.37	.46	.06	110	140

YELLOWSTONE RIVER BASIN
06306100 SQUIRREL CREEK NEAR DECKER, MT--Continued
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED BARIUM (BA) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BISMUTH (BI) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)
OCT 06...	1230	410	--	2	--	--	10	--	--	10	--
NOV 10...	1230	90	0	1	1	70	0	10	<10	<10	0
JAN 06...	1400	80	--	0	--	--	10	--	--	0	--
APR 05...	1200	20	--	0	--	--	0	--	--	10	--
JUL 06...	1215	730	--	2	--	--	0	--	--	<10	--

DATE	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED GALLIUM (GA) (UG/L)	DISSOLVED GERMANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
OCT 06...	10	--	--	0	--	--	--	710	<100	--
NOV 10...	66	2	<6	<10	2	<3	<10	500	<100	0
JAN 06...	0	--	--	<10	--	--	--	360	<100	--
APR 05...	10	--	--	<10	--	--	--	460	<100	--
JUL 06...	0	--	--	<10	--	--	--	2500	<100	--

DATE	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)
OCT 06...	70	--	120	--	.2	--	1	--	<50	--
NOV 10...	70	60	130	110	.0	.0	2	3	<50	2
JAN 06...	60	--	120	--	.0	--	2	--	<50	--
APR 05...	50	--	60	--	.0	--	1	--	<50	--
JUL 06...	50	--	120	--	.0	--	1	--	<50	--

DATE	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED TIN (SN) (UG/L)	DISSOLVED TITANIUM (TI) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	DISSOLVED ZIRCONIUM (ZR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT 06...	0	--	--	--	--	--	--	--	10	--
NOV 10...	0	1	<1	870	<10	<3	.0	<10	10	20
JAN 06...	1	--	--	--	--	--	--	--	20	--
APR 05...	0	--	--	--	--	--	--	--	10	--
JUL 06...	0	--	--	--	--	--	--	--	0	--

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 06...	1230	9.0	1.1	29	.09
NOV 10...	1230	.5	1.5	21	.09
DEC 01...	1215	.0	1.7	6	.03
JAN 06...	1400	.0	2.0	33	.18
FEB 02...	1405	.0	2.5	25	.17
MAR 01...	1245	.0	.93	61	.15
APR 05...	1200	8.5	6.1	55	.91
MAY 03...	1300	12.0	11	175	5.2
JUN 07...	1255	18.0	3.9	303	3.2
JUL 06...	1215	19.0	2.7	158	1.2
AUG 02...	1315	18.0	1.5	94	.38
30...	1210	16.0	.27	115	.08

06306250 PRAIRIE DOG CREEK NEAR ACME, WY

LOCATION.--Lat 44°59'02", long 106°50'21", in NE¼SW¼SW¼ sec.23, T.58 N., R.83 W., Sheridan County, Hydrologic Unit 10090101, on right bank 600 ft (183 m) upstream from county bridge, 0.9 mi (1.5 km) upstream from mouth, 2.8 mi (4.5 km) downstream from Coutant Creek, and 7.6 mi (12.2 km) northeast of Acme.

DRAINAGE AREA.--358 mi^3 (927 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to current year. Records for May 1965 to September 1970 in files of Office of Wyoming State Engineer.

GAGE.--Water-stage recorder. Altitude of gage is 3,450 ft (1,052 m), from topographic map.

REMARKS.--Records fair except those for winter period and August, which are poor. Diversions for irrigation of about 13,600 acres (55.0 km^2) above station, of which about 60 acres (243,000 m^2) lies below station. Flow supplemented by 3 transbasin diversions from North Piney Creek and South Piney Creek via Prairie Dog Creek ditch, Piney and Cruse ditch and Mead-Coffeen ditch.

AVERAGE DISCHARGE.--6 years, 43.8 ft^3/s (1.240 m^3/s), 31,730 acre-ft/yr (39.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 738 ft^3/s (20.9 m^3/s) Mar. 5, 1975, gage height, 6.01 ft (1.832 m), from rating curve extended above 190 ft^3/s (5.38 m^3/s) on basis of step-backwater computation; minimum daily, 6.3 ft^3/s (0.178 m^3/s) June 4, 5, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 146 ft^3/s (4.13 m^3/s) Feb. 16, gage height, 3.00 ft (0.914 m); minimum daily, 6.3 ft^3/s (0.178 m^3/s) June 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	26	28	20	37	48	40	87	13	47	23	35
2	15	26	32	18	36	39	40	77	12	33	24	41
3	15	26	32	16	33	35	40	64	8.8	22	23	38
4	15	26	40	16	31	30	39	55	6.3	21	26	35
5	15	26	59	18	30	33	38	50	6.3	21	26	27
6	14	26	43	20	29	38	37	48	6.5	18	24	22
7	16	26	35	21	28	44	38	47	7.0	14	24	22
8	15	25	40	22	32	47	38	43	8.6	13	25	24
9	16	24	40	24	40	51	38	40	9.9	11	25	32
10	15	23	43	25	45	52	38	38	9.1	19	26	35
11	16	24	38	26	55	57	37	36	8.6	18	28	38
12	16	25	30	27	64	50	36	34	7.6	14	30	41
13	17	26	25	28	76	42	35	38	8.8	9.4	20	45
14	18	28	20	28	93	48	35	44	11	11	17	48
15	20	26	18	28	106	53	34	43	19	11	19	51
16	25	25	17	28	116	53	35	47	47	13	18	54
17	27	24	16	28	100	49	38	50	43	13	24	55
18	25	23	19	28	94	55	57	43	82	14	24	51
19	25	21	24	28	78	63	56	40	83	16	25	47
20	25	20	30	28	55	66	47	37	70	18	26	48
21	27	19	35	28	43	56	42	36	72	18	26	51
22	29	21	37	28	45	59	40	37	65	16	26	50
23	30	23	37	28	55	51	40	80	67	17	26	48
24	32	27	37	26	65	47	38	51	68	19	26	46
25	28	30	37	25	69	46	37	43	66	16	26	47
26	28	28	36	24	78	45	37	32	63	16	26	51
27	30	25	35	24	72	43	42	27	62	16	26	58
28	34	23	33	24	74	43	66	20	59	16	26	64
29	32	23	31	25	63	42	83	18	56	19	26	59
30	29	25	30	30	---	41	89	17	52	22	27	57
31	27	---	25	35	---	40	---	15	---	23	28	---
TOTAL	691	740	1002	774	1742	1466	1310	1337	1097.5	554.4	766	1320
MEAN	22.3	24.7	32.3	25.0	60.1	47.3	43.7	43.1	36.6	17.9	24.7	44.0
MAX	34	30	59	35	116	66	89	87	83	47	30	64
MIN	14	19	16	16	28	30	34	15	6.3	9.4	17	22
AC-FT	1370	1470	1990	1540	3460	2910	2600	2650	2180	1100	1520	2620

CAL YR 1975 TOTAL 16609.0 MEAN 45.5 MAX 581 MIN 8.0 AC-FT 32940
WTR YR 1976 TOTAL 12799.9 MEAN 35.0 MAX 116 MIN 6.3 AC-FT 25390

06306250 PRAIRIE DOG CREEK NEAR ACME, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
AUG 11...	1100	27	1400	8.0	18.0	20	8.9	690	400	130	88	77

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)
AUG 11...	1.3	8.2	350	0	287	550	2.5	.3	14	1040	1.41	75.8

DATE	TOTAL NITRITE PLUS NITRATF (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED-PHOSPHORUS (P) (MG/L)
AUG 11...	.22	.22	.00	.01	.49	.45	.49	.46	.71	.09	.03

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)
AUG 11...	1100	1500	0	2	1	0	0	130	<10	0	0	0

DATE	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)
AUG 11...	<10	1	2700	10	100	1	50	40	320	180	.0	.0

DATE	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
AUG 11...	1	1	<50	2	1	1	20	0	740	.0	184	13

YELLOWSTONE RIVER BASIN

06306250 PRAIRIE DOG CREEK NEAR ACME, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 11.76
TIME	1100
TOTAL CELLS/ML	740
DIVERSITY: DIVISION	0.0
.CLASS	0.0
..ORDER	0.2
...FAMILY	1.8
....GENUS	1.8

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...SCENEDESMACEAE		
....ACTINASTRUM	*	0
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	22	3
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	22	3
....COCCONEIS	*	0
....RHOICOSPHENIA	22	3
...FRAGILARIACEAE		
....ASTERIONELLA	*	0
....SYNEDRA	22	3
...NAVICULACEAE		
....GYROSIGMA	*	0
....NAVICULA	150#	21
...NITZSCHIACEAE		
....NITZSCHIA	440#	59
...SURIRELLACEAE		
....SURIRELLA	65	9
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	*	0
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	*	0

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

PERIPHYTON

AUG. 11, 1976
1100 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME_______________	_COMMON__NAME_______
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....MELOSIRA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....CYMBELLA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....CALONEIS	
O	....GYROSIGMA	
E	....NAVICULA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....LYNGBYA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....EUGLENA	
	RHODOPHYTA	RED ALGAE
	.RHODOPHYCEAE	
	..NEMALIONALES	
	...CHANTRANSICACEAE	
O	....AUDOUINELLA	

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT

LOCATION.--Lat 45°00'32", long 106°50'08", in NW¼NE¼ sec.33, T.9 S., R.40 E., Big Horn County, Hydrologic Unit 10090101, on left bank 1.0 mi (1.6 km) north of Wyoming-Montana State line, 1.4 mi (2.3 km) southeast of Decker, and 1.5 mi (2.4 km) upstream from Badger Creek.

DRAINAGE AREA.--1,477 mi² (3,825 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1960 to current year. Records published as "near Decker" May 1928 to September 1938, not equivalent owing to intervening drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 3,430 ft (1,050 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by many small reservoirs in Wyoming, combined capacity, about 15,000 acre-ft (18.5 hm³). Diversions for irrigation of about 64,300 acres (260 km²) above station.

AVERAGE DISCHARGE.--16 years, 511 ft³/s (14.47 m³/s), 370,200 acre-ft/yr (456 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,480 ft³/s (212 m³/s) June 15, 1967, gage height, 10.86 ft (3.310 m); maximum gage height, 10.94 ft (3.335 m) Feb. 6, 1963 (backwater from ice jam); minimum discharge, 3.0 ft³/s (0.11 m³/s) Aug. 23, 1961, gage height, 1.83 ft (0.558 m).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (56.6 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 6	2100	*2140	60.6	5.83	1.777
June 23	2000	2020	57.2	5.81	1.771

Minimum discharge, 97 ft³/s (2.74 m³/s) Sept. 6, gage height, 2.62 ft (0.799 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	208	300	210	200	300	340	232	402	1620	915	169	143
2	203	291	250	170	305	310	236	386	1640	1010	262	147
3	190	288	350	200	300	280	236	390	1660	1030	446	132
4	189	286	450	220	290	350	222	414	1740	903	530	117
5	187	290	400	230	270	400	218	486	1790	813	390	109
6	187	284	350	250	230	430	218	535	1900	715	394	103
7	197	280	300	270	200	440	232	515	2030	660	346	112
8	203	276	330	280	250	460	262	505	1930	676	310	145
9	227	263	330	290	300	490	254	584	1840	594	278	183
10	225	237	330	300	340	500	250	666	1700	530	265	198
11	243	241	330	300	400	450	262	766	1520	486	258	196
12	255	259	280	300	450	400	254	880	1330	455	250	193
13	267	261	220	300	500	400	278	801	1180	455	254	213
14	283	297	170	300	600	450	318	874	1200	437	243	231
15	298	280	120	300	550	470	318	1110	1500	406	225	232
16	292	277	160	320	500	486	326	1110	1470	366	218	230
17	290	275	180	350	450	491	414	1030	1520	342	215	221
18	277	279	200	400	420	455	410	1120	1470	326	204	208
19	276	276	250	380	400	338	362	1220	1340	318	200	202
20	267	254	270	370	380	314	326	1360	1340	310	204	218
21	271	200	260	350	370	262	294	1470	1330	310	204	225
22	287	180	250	350	370	258	290	1540	1460	282	183	220
23	337	210	250	350	380	246	278	1580	1770	246	169	210
24	318	250	250	340	390	243	269	1570	1800	229	162	211
25	249	230	250	320	400	236	254	1600	1520	215	165	226
26	285	210	270	270	400	232	278	1610	1330	197	180	245
27	329	200	270	250	420	225	390	1470	1220	197	176	331
28	335	220	280	250	420	239	520	1430	1100	183	190	340
29	298	220	280	260	420	246	450	1520	1000	172	197	309
30	298	200	280	270	---	236	432	1730	915	172	190	288
31	302	---	270	280	---	229	---	1620	---	162	144	---
TOTAL	8113	7610	8390	9020	11005	10906	9083	32294	45165	14112	7621	6138
MEAN	262	254	271	291	379	352	303	1042	1506	455	246	205
MAX	337	300	450	400	600	500	520	1730	2030	1030	530	340
MIN	187	180	120	170	200	225	218	386	915	162	144	103
AC-FT	16090	15110	16640	17890	21830	21630	18020	64060	89580	27990	15120	12170

CAL YR 1975 TOTAL 277910 MEAN 761 MAX 5230 MIN 110 AC-FT 551200
WTR YR 1976 TOTAL 169463 MEAN 463 MAX 2030 MIN 103 AC-FT 336100

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1976 (discontinued).
WATER TEMPERATURES: October 1965 to September 1976 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE.--Maximum daily, 1,490 micromhos Aug. 12, 1966, Jan. 11, 1972; minimum daily, 192 micromhos June 7, 1976.
WATER TEMPERATURES: Maximum, 31.0°C July 16, 1966; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,010 micromhos Mar. 6; minimum daily, 192 micromhos June 7.
WATER TEMPERATURES: Maximum, 25.0°C July 11; minimum, 0.0°C on many days during November to March.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 04...	0800	204	800	8.1	12.0	--	8.5	3.1	B27	380	130
NOV 08...	0830	278	820	8.2	4.0	3	10.9	2.1	B24	380	120
DEC 06...	0800	A350	700	8.0	.5	4	10.8	2.3	140	350	100
JAN 10...	0915	A300	850	7.7	1.0	7	10.1	1.5	68	400	140
FEB 07...	0830	A200	820	7.9	.0	4	9.8	2.0	110	440	160
MAR 08...	0830	A460	910	8.1	.0	3	11.8	2.6	21	440	160
APR 10...	0845	258	880	8.2	10.0	20	10.8	2.4	B250	400	160
MAY 08...	0800	495	600	8.1	12.0	15	8.9	4.0	82	260	80
JUN 13...	0800	1190	260	7.9	13.0	20	8.3	5.1	B1200	120	30
JUL 11...	0915	495	440	8.0	25.0	7	7.5	3.4	B1800	210	62
AUG 07...	0900	282	650	7.9	21.5	20	7.0	3.9	120	290	85
11...	1300	200	670	8.5	23.5	10	9.5	--	--	310	95
SEP 04...	0930	120	780	8.0	17.5	7	7.7	2.7	100	370	130

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT 04...	74	46	39	.9	4.2	300	0	246	220	4.3	.4
NOV 08...	70	49	35	.8	3.5	300	6	256	190	4.2	.4
DEC 06...	67	44	34	.8	3.5	300	0	246	180	5.3	.4
JAN 10...	82	47	36	.8	3.7	320	0	263	200	5.2	.4
FEB 07...	84	56	45	.9	4.2	340	0	279	250	5.9	.5
MAR 08...	84	55	44	.9	4.0	330	6	281	250	5.2	.5
APR 10...	78	50	44	1.0	3.7	280	6	240	240	6.1	.4
MAY 08...	54	31	27	.7	2.6	220	0	180	140	3.6	.3
JUN 13...	26	12	7.6	.3	1.6	110	0	90	40	1.9	.2
JUL 11...	44	25	20	.6	1.9	180	0	148	89	1.9	.3
AUG 07...	58	37	26	.7	2.8	250	0	205	140	3.0	.4
11...	65	36	28	.7	3.4	251	6	216	150	2.6	.3
SEP 04...	73	47	39	.9	4.9	290	0	238	210	3.6	.7

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	SUSPENDED SOLIDS (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)
OCT 04...	4.3	540	.73	297	20	.05	.01	--	.00	--
NOV 08...	4.7	506	.69	380	0	.00	.02	--	.00	--
DEC 06...	7.4	489	.67	462	4	.23	.31	--	.11	--
JAN 10...	10	544	.74	441	16	.50	.43	--	.15	--
FEB 07...	9.2	626	.85	338	1	.27	.41	--	.10	--
MAR 08...	7.8	614	.84	763	3	.20	.26	--	.05	--
APR 10...	4.8	576	.78	401	24	.14	.03	--	.09	--
MAY 08...	7.0	370	.50	495	30	.09	.03	--	.08	--
JUN 13...	6.9	152	.21	488	27	.16	.07	--	.10	--
JUL 11...	5.6	278	.38	372	24	.07	.22	--	.05	--
AUG 07...	8.3	401	.55	305	32	.32	.11	--	.05	--
11...	6.6	422	.57	228	--	--	.06	.01	.00	.00
SEP 04...	3.7	525	.71	170	2	.00	.11	--	.11	--

DATE	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL BORON (B) (UG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
OCT 04...	.31	--	.31	--	.32	.02	--	210	610	--
NOV 08...	.39	--	.39	--	.41	.02	--	--	2500	--
DEC 06...	.28	--	.39	--	.70	.04	--	--	640	--
JAN 10...	.66	--	.81	--	1.2	.14	--	90	1800	--
FEB 07...	.66	--	.76	--	1.2	.07	--	160	280	--
MAR 08...	.61	--	.66	--	.92	.05	--	170	760	--
APR 10...	1.0	--	1.1	--	1.1	.09	--	110	3600	--
MAY 08...	.68	--	.76	--	.79	.05	--	40	3800	--
JUN 13...	.48	--	.58	--	.65	.06	--	40	1800	--
JUL 11...	.56	--	.61	--	.83	.05	--	80	2000	--
AUG 07...	.69	--	.74	--	.85	.07	--	110	2100	--
11...	.21	.58	.21	.58	.27	.05	.04	--	990	5.9
SEP 04...	.51	--	.62	--	.73	.03	--	160	8800	--

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	SUS- PENDED ALUM- INUM (AL) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUS- PENDED ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL- LIUM (BE) (UG/L)	SUS- PENDED BERYL- LIUM (BE) (UG/L)	DIS- SOLVED BERYL- LIUM (BE) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)
OCT 04...	0800	130	120	10	0	0	0	<10	0	<10	--	0
JAN 10...	0915	360	350	10	0	0	0	10	0	10	--	<10
APR 10...	0845	320	320	0	0	0	0	0	0	0	--	<10
JUL 11...	0915	200	170	30	1	1	0	0	0	10	--	<10
AUG 11...	1300	410	--	0	1	--	0	0	--	0	90	<10

DATE	SUS- PENDED CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	SUS- PENDED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS- PENDED COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS- PENDED LEAD (PB) (UG/L)
OCT 04...	0	0	10	0	10	10	8	2	140	0	0	0
JAN 10...	<9	1	10	10	0	10	8	2	710	0	<100	<99
APR 10...	<9	1	0	0	0	10	6	4	630	0	<100	<100
JUL 11...	<10	0	0	0	0	<10	<8	2	300	30	<100	<98
AUG 11...	--	1	0	--	0	<10	--	1	560	10	<100	--

DATE	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	SUS- PENDED LITHIUM (LI) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	SUS- PENDED MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS- PENDED MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB- DENUM (MO) (UG/L)	SUS- PENDED MOLYB- DENUM (MO) (UG/L)
OCT 04...	1	10	0	20	40	10	30	.0	.0	.0	2	1
JAN 10...	1	20	0	20	80	50	30	.0	.0	.0	2	1
APR 10...	0	30	10	20	110	30	80	.0	.0	.0	1	1
JUL 11...	2	20	0	20	50	40	10	.0	.0	.1	0	0
AUG 11...	0	20	--	20	60	--	20	.0	--	.0	0	--

DATE	DIS- SOLVED MOLYB- DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	SUS- PENDED NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	SUS- PENDED SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED VANA- DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS- PENDED ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT 04...	1	<50	<48	2	0	0	0	1.1	10	0	10	4.8
JAN 10...	1	<50	<48	2	1	0	1	.7	10	0	10	4.7
APR 10...	0	<50	<44	6	1	0	1	1.1	110	100	10	4.7
JUL 11...	0	<50	<50	0	0	0	0	.7	20	10	10	4.0
AUG 11...	0	<50	--	3	1	--	1	--	10	--	0	--

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
AUG 11...	1300	23.5	200	55	30

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	836	826	913	846	791	901	928	832	231	389	739	804
2	854	821	883	934	772	950	925	823	212	368	694	777
3	839	815	829	928	772	971	910	783	218	321	598	766
4	857	806	786	931	795	995	905	740	208	322	504	787
5	863	811	768	926	920	975	902	679	197	347	603	819
6	813	791	800	899	935	1010	906	606	196	367	655	821
7	847	803	811	866	924	954	886	599	192	374	636	811
8	858	809	781	827	961	914	863	583	194	386	633	800
9	845	809	833	841	936	842	855	556	202	381	648	798
10	841	778	845	828	848	817	848	505	204	431	655	759
11	870	854	840	802	804	808	836	462	212	431	672	761
12	852	864	829	786	778	892	802	404	223	457	692	764
13	780	844	829	798	753	923	789	415	250	444	690	743
14	813	832	871	805	680	814	750	428	281	470	704	729
15	824	862	892	824	697	881	728	375	314	502	717	745
16	809	852	934	804	762	860	688	339	419	540	736	735
17	787	809	932	777	818	887	683	383	329	556	746	719
18	787	813	974	756	845	887	681	361	360	568	766	732
19	781	813	932	738	867	876	748	338	417	614	753	735
20	793	769	891	777	878	889	778	303	399	618	795	727
21	787	852	874	814	885	878	778	276	361	620	770	740
22	787	914	848	820	909	937	743	260	355	611	779	730
23	765	925	857	828	915	937	759	268	311	656	777	738
24	782	867	863	828	887	927	764	257	270	709	816	837
25	806	869	822	838	875	937	779	262	275	696	842	726
26	839	834	803	913	833	934	766	246	316	691	826	710
27	811	852	791	919	841	929	729	249	329	691	782	675
28	834	848	791	888	830	918	721	249	352	698	772	693
29	824	870	808	856	855	912	755	239	355	747	800	682
30	837	903	806	810	---	917	832	219	370	724	771	672
31	837	---	806	788	---	917	---	230	---	724	798	---
MONTH	821	837	847	839	840	909	801	428	285	531	722	751
YEAR	MAX	1010	MIN	192	MEAN	717						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	4.0	1.0	0.0	1.0	1.0	5.0	8.0	13.0	16.0	22.0	17.0
2	9.0	5.0	2.0	0.0	1.0	0.0	5.0	10.0	13.0	19.0	21.0	17.0
3	10.0	5.0	1.0	0.0	1.0	0.0	4.0	10.0	12.0	19.0	19.0	18.0
4	11.0	5.0	1.0	0.0	0.0	0.0	6.0	12.0	13.0	18.0	19.0	18.0
5	11.0	4.0	0.0	0.0	0.0	0.0	7.0	11.0	12.0	19.0	20.0	17.0
6	11.0	5.0	0.0	1.0	0.0	1.0	7.0	11.0	14.0	20.0	19.0	17.0
7	11.0	4.0	1.0	1.0	0.0	1.0	6.0	10.0	14.0	20.0	21.0	16.0
8	10.0	4.0	1.0	0.0	1.0	1.0	8.0	11.0	15.0	19.0	21.0	15.0
9	7.0	3.0	1.0	0.0	1.0	1.0	9.0	11.0	15.0	20.0	20.0	13.0
10	8.0	2.0	1.0	1.0	1.0	1.0	8.0	12.0	14.0	20.0	20.0	13.0
11	9.0	2.0	0.0	1.0	2.0	1.0	8.0	13.0	15.0	21.0	19.0	14.0
12	9.0	1.0	0.0	0.0	2.0	0.0	12.0	12.0	15.0	21.0	20.0	13.0
13	9.0	2.0	1.0	0.0	1.0	0.0	11.0	11.0	14.0	21.0	20.0	15.0
14	8.0	2.0	0.0	0.0	1.0	1.0	10.0	12.0	13.0	20.0	20.0	14.0
15	6.0	3.0	0.0	1.0	1.0	1.0	11.0	12.0	9.0	21.0	20.0	15.0
16	7.0	4.0	0.0	1.0	1.0	1.0	11.0	9.0	10.0	21.0	20.0	15.0
17	7.0	4.0	0.0	1.0	1.0	1.0	10.0	10.0	9.0	22.0	19.0	16.0
18	8.0	4.0	1.0	2.0	1.0	1.0	9.0	10.0	9.0	22.0	20.0	15.0
19	8.0	3.0	1.0	1.0	1.0	3.0	9.0	11.0	10.0	21.0	20.0	16.0
20	8.0	0.0	1.0	0.0	1.0	3.0	8.0	14.0	11.0	22.0	19.0	16.0
21	9.0	0.0	0.0	0.0	1.0	2.0	9.0	13.0	15.0	22.0	19.0	15.0
22	9.0	0.0	1.0	1.0	1.0	3.0	9.0	13.0	14.0	21.0	20.0	16.0
23	6.0	0.0	1.0	1.0	1.0	5.0	10.0	12.0	15.0	22.0	20.0	14.0
24	5.0	0.0	0.0	0.0	1.0	4.0	9.0	12.0	13.0	22.0	19.0	15.0
25	4.0	1.0	1.0	0.0	1.0	5.0	9.0	13.0	13.0	21.0	18.0	14.0
26	4.0	0.0	1.0	0.0	1.0	4.0	10.0	13.0	14.0	22.0	18.0	13.0
27	5.0	1.0	1.0	1.0	1.0	5.0	9.0	12.0	13.0	22.0	15.0	14.0
28	4.0	1.0	1.0	1.0	1.0	5.0	8.0	12.0	13.0	21.0	16.0	11.0
29	4.0	0.0	1.0	1.0	0.0	4.0	7.0	13.0	14.0	22.0	17.0	10.0
30	5.0	0.0	1.0	1.0	---	3.0	8.0	12.0	16.0	21.0	16.0	12.0
31	5.0	---	0.0	1.0	---	4.0	---	13.0	---	22.0	17.0	---
MONTH	7.5	2.5	0.5	0.5	1.0	2.0	8.5	11.5	13.0	20.5	19.0	15.0
YEAR	MAX	22.0	MIN	0.0	MEAN	8.5						

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	OCT 4,75		NOV 8,75		DEC 6,75		JAN 10,76		FEB 7,76	
TIME	0800		0830		0800		0915		0830	
TOTAL CELLS/ML	610		2500		640		1800		280	
DIVERSITY: DIVISION	0.0		0.4		0.7		0.2		0.8	
.CLASS	0.0		0.4		0.7		0.2		0.8	
..ORDER	0.3		0.5		1.1		0.3		0.9	
...FAMILY	1.8		2.4		2.0		2.7		2.8	
....GENUS	1.8		2.5		2.0		2.7		2.8	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	29	5	--	-	--	-
...MICRACTINIACEAE										
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	110	5	--	-	--	-	11	5
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	*	0	110	5	--	-	40	3	22	9
...PHACOTACEAE										
....PHACOTUS	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	--	-	--	-	--	-	--	-	--	-
...ZYGNEMATACEAE										
....SPIROGYRA	--	-	--	-	87	14	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	31	6	--	-	29	5	40	3	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	*	0	--	-	--	-
....COCCONEIS	31	6	--	-	--	-	40	3	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	*	0	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	110	5	--	-	--	-	--	-
....EPITHEMIA	31	6	220	9	--	-	40	3	*	0
...DIATOMACEAE										
....DIATOMA	31	6	780#	32	--	-	40	3	22	9
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
....HANNAEA	--	-	--	-	--	-	*	0	--	-
....SYNEDRA	*	0	56	3	*	0	240	14	11	5
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	200	11	22	9
...NAVICULACEAE										
....CALONEIS	--	-	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	*	0	--	-
....NAVICULA	120#	21	500#	21	170#	28	440#	24	78#	29
....NEIDIUM	--	-	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	370#	61	610#	25	290#	46	200	11	78#	29
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	--	-	*	0	--	-
....SURIRELLA	--	-	--	-	29	5	560#	31	22	9
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....OCHROMONAS	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.MYXOPHYCEAE										
..OSCILLATORIALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	--	-	*	0
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..GYMNODINIALES										
...GYMNODINIACEAE										
....GYMNODINIUM	--	-	--	-	--	-	--	-	11	5
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-
...PERIDINIACEAE										
....PERIDINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	MAR 8,76		APR 10,76		MAY 8,76		JUN 13,76	
TIME	0830		0845		0800		0800	
TOTAL CELLS/ML	760		3600		3800		1800	
DIVERSITY: DIVISION	1.1		0.0		0.0		0.0	
.CLASS	1.1		0.0		0.0		0.0	
..ORDER	1.1		0.9		0.6		0.0	
...FAMILY	2.5		1.9		1.9		1.8	
....GENUS	2.5		1.9		2.2		1.9	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	*	0	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	130#	17	*	0	--	-	--	-
...PHACOTACEAE								
....PHACOTUS	--	-	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	--	-	--	-	--	-	--	-
...ZYGNEMATACEAE								
....SPIROGYRA	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	1100#	31	600#	17	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	150	5	--	-
....COCCONEIS	32	5	*	0	230	7	84	5
....RHOICOSPHENIA	--	-	*	0	--	-	84	5
...CYMBELLACEAE								
....CYMBELLA	--	-	*	0	230	7	340#	20
....EPITHEMIA	32	5	71	3	75	3	--	-
...DIATOMACEAE								
....DIATOMA	*	0	*	0	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	--	-	--	-	--	-
....HANNAEA	32	5	--	-	--	-	--	-
....SYNEDRA	*	0	140	5	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	71	3	--	-	84	5
...NAVICULACEAE								
....CALONEIS	--	-	*	0	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	--	-
....NAVICULA	350#	46	1600#	45	2000#	55	1000#	58
....NEIDIUM	--	-	--	-	*	0	--	-
....STAURONEIS	--	-	--	-	75	3	--	-
...NITZSCHIACEAE								
....NITZSCHIA	95	13	640#	19	300	9	170	10
...SURIRELLACEAE								
....CYMATOPLEURA	--	-	--	-	--	-	--	-
....SURIRELLA	32	5	*	0	75	3	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.MYXOPHYCEAE								
..OSCILLATORIALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOMONODACEAE								
....CRYPTOMONAS	32	5	--	-	--	-	--	-
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	*	0	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	--	-	--	-
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	32	5	--	-	--	-	--	-
...PERIDINIACEAE								
....PERIDINIUM	--	-	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

YELLOWSTONE RIVER BASIN

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JUL 11,76		AUG 7,76		AUG 11,76		SEP 4,76	
TIME	0915		0900		1300		0930	
TOTAL CELLS/ML	2000		2100		990		8800	
DIVERSITY: DIVISION	0.3		0.9		1.1		0.9	
.CLASS	0.3		0.9		1.1		0.9	
..ORDER	0.7		1.4		1.3		1.8	
...FAMILY	2.8		2.5		2.2		2.5	
....GENUS	3.3		2.8		2.4		2.5	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	-	--	-	1300#	16
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	54	3	42	5	330	4
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	640#	31	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	90	5	--	-	21	3	250	3
...PHACOTACEAE								
....PHACOTUS	--	-	--	-	--	-	83	1
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	--	-	--	-	*	0	83	1
...ZYGNEMATACEAE								
....SPIROGYRA	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	180	9	320#	16	21	3	4300#	50
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	180	9	110	6	21	3	--	-
....COCCONEIS	450#	23	110	6	85	9	250	3
....RHOICOSPHENIA	90	5	110	6	--	-	83	1
...CYMBELLACEAE								
....CYMBELLA	90	5	--	-	--	-	83	1
....EPITHEMIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	45	3	--	-	--	-	83	1
...FRAGILARIACEAE								
....FRAGILARIA	180	9	--	-	--	-	--	-
....HANNAEA	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	--	-	83	1
...GOMPHONEMATACEAE								
....GOMPHONEMA	130	7	110	6	--	-	--	-
...NAVICULACEAE								
....CALONEIS	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	21	3	--	-
....NAVICULA	270	14	320#	16	63	7	410	5
....NEIDIUM	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	270	14	320#	16	440#	45	1200	15
...SURIRELLACEAE								
....CYMATOPLEURA	--	-	--	-	--	-	--	-
....SURIRELLA	45	3	--	-	21	3	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	83	1
CYANOPHYTA (BLUE-GREEN ALGAE)								
.MYXOPHYCEAE								
..OSCILLATORIALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	250#	26	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOMONODACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	83	1
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	--	-	--	-
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	--	-
...PERIDINIACEAE								
....PERIDINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

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                         NOV. 9, 1975
                          0830 HOURS

                  IDENTIFICATION OF PERIPHYTON

   _ORGANISM__NAME______________   _COMMON__NAME______

   CHLOROPHYTA                     GREEN ALGAE
   .CHLOROPHYCEAE
   ..CHLOROCOCCALES
   ...SCENEDESMACEAE
   ....SCENEDESMUS
   ..OEDOGONIALES
   ...OEDOGONIACEAE
   ....OEDOGONIUM
   ..ULOTRICHALES
   ...CHAETOPHORACEAE
   ....STIGEOCLONIUM
   ..ZYGNEMATALES
   ...ZYGNEMATACEAE
   ....MOUGEOTIA
   CHRYSOPHYTA
   .BACILLARIOPHYCEAE              DIATOMS
   ..PENNALES                      PENNATE
   ...ACHNANTHACEAE
   ....COCCONEIS
   ....RHOICOSPHENIA
   ...CYMBELLACEAE
   ....CYMBELLA
 & ....EPITHEMIA
   ....RHOPALODIA
   ...DIATOMACEAE
   ....DIATOMA
   ...FRAGILARIACEAE
   ....SYNEDRA
   ...GOMPHONEMATACEAE
   ....GOMPHONEMA
   ...NAVICULACEAE                 NAVICULOID
   ....CALONEIS
   ....GYROSIGMA
 & ....NAVICULA
   ...NITZSCHIACEAE
   ....NITZSCHIA
   CYANOPHYTA                      BLUE-GREEN ALGAE
   .MYXOPHYCEAE
   ..OSCILLATORIALES               FILAMENTOUS
   ...OSCILLATORIACEAE
   ....LYNGBYA

                         MAY  8, 1976
                          0800 HOURS

                      TIFICATION OF PERIPHYTON

   _ORGANISM__NAME______________   _COMMON__NAME______

   CHLOROPHYTA                     GREEN ALGAE
   .CHLOROPHYCEAE
   ..CHLOROCOCCALES
   ...SCENEDESMACEAE
 O ....SCENEDESMUS
   CHRYSOPHYTA
   .BACILLARIOPHYCEAE              DIATOMS
   ..PENNALES                      PENNATE
   ...ACHNANTHACEAE
 O ....COCCONEIS
   ...CYMBELLACEAE
 O ....CYMBELLA
 O ....EPITHEMIA
   ...DIATOMACEAE
 O ....DIATOMA
   ...FRAGILARIACEAE
 O ....SYNEDRA
   ...GOMPHONEMATACEAE
 O ....GOMPHONEMA
   ...NAVICULACEAE                 NAVICULOID
 O ....CALONEIS
 O ....GYROSIGMA
 E ....NAVICULA
   ...NITZSCHIACEAE
 O ....NITZSCHIA
   ...SURIRELLACEAE
 O ....CYMATOPLEURA
 O ....SURIRELLA
   ...ACHNANTHACEAE
 O ....RHOICOSPHENIA
   CYANOPHYTA                      BLUE-GREEN ALGAE
   .MYXOPHYCEAE
   ..OSCILLATORIALES               FILAMENTOUS
   ...OSCILLATORIACEAE
 O ....LYNGBYA

 NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
       O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
       SAMPLING METHOD: PLASTIC SLIDES. TIMED SAMPLING INTERVAL
       ANALYSIS METHOD: SLIDE MOUNTING. 200-X MICROSCOPE
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06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

AUG. 7, 1976
0900 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
O	....CLADOPHORA	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	..ULOTRICHALES	
	...CHAETOPHORACEAE	
O	....STIGEOCLONIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....MELOSIRA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
E	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
E	....EPITHEMIA	
O	....RHOPALODIA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....CALONEIS	
O	....GYROSIGMA	
O	....NAVICULA	
O	....NEIDIUM	
O	....PINNULARIA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...SURIRELLACEAE	
O	....CYMATOPLEURA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....LYNGBYA	

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
SAMPLING METHOD: PLASTIC SLIDES. TIMED SAMPLING INTERVAL
ANALYSIS METHOD: SLIDE MOUNTING. 200-X MICROSCOPE

06306300 TONGUE RIVER AT STATE LINE, NEAR DECKER, MT.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

```
                         AUG. 11, 1976
                          1300 HOURS

                   IDENTIFICATION OF PERIPHYTON

  _ORGANISM__NAME________________   _COMMON__NAME_______

  CHLOROPHYTA                       GREEN ALGAE
  .CHLOROPHYCEAE
  ..CHLOROCOCCALES
  ...SCENEDESMACEAE
O ....SCENEDESMUS
  ..CLADOPHORALES
  ...CLADOPHORACEAE
E ....CLADOPHORA
  ..ZYGNEMATALES
  ...DESMIDIACEAE                   PLACODERM DESMIDS
O ....CLOSTERIUM
  CHRYSOPHYTA
  .BACILLARIOPHYCEAE                DIATOMS
  ..CENTRALES                       CENTRIC
  ...COSCINODISCACEAE
O ....CYCLOTELLA
  ..PENNALES                        PENNATE
  ...ACHNANTHACEAE
O ....ACHNANTHES
E ....COCCONEIS
  ...CYMBELLACEAE
O ....CYMBELLA
O ....EPITHEMIA
O ....RHOPALODIA
  ...DIATOMACEAE
O ....DIATOMA
  ...FRAGILARIACEAE
O ....FRAGILARIA
O ....SYNEDRA
  ...GOMPHONEMATACEAE
O ....GOMPHONEMA
  ...NAVICULACEAE                   NAVICULOID
O ....ANOMOEONEIS
O ....CALONEIS
O ....GYROSIGMA
O ....NAVICULA
  ...NITZSCHIACEAE
O ....HANTZSCHIA
  ...SURIRELLACEAE
O ....SURIRELLA
  ...ACHNANTHACEAE
E ....RHOICOSPHENIA
  CYANOPHYTA                        BLUE-GREEN ALGAE
  .MYXOPHYCEAE
  ..CHROOCOCCALES                   COCCOID
  ...CHAMAESIPHONACEAE
O ....CHAMAESIPHON
  ..OSCILLATORIALES                 FILAMENTOUS
  ...NOSTOCACEAE

O ....ANABAENA
  ...OSCILLATORIACEAE
O ....LYNGBYA

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
      O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
      ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE
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06306800 DEER CREEK NEAR DECKER, MT

LOCATION.--Lat 45°03'19", long 106°42'09", in NW¼SW¼SW¼ sec.10, T.9 S., R.41 E., Big Horn County, Hydrologic Unit 10090101, at county road bridge, 6.1 mi (9.8 km) upstream from mouth, and 8.5 mi (13.7 km) northeast of Decker.

DRAINAGE AREA.--38.3 mi^2 (99.2 km^2).

PERIOD OF RECORD.--Water years 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	AIR TEMPERATURE (DEG C)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT												
21...	1315	.06	6250	8.3	11.5	8.5	2	9.0	88	1.6	2200	1700
FEB												
17...	1400	.30	4200	7.9	8.0	.0	6	6.3	49	5.8	1600	1100
MAY												
04...	0900	.21	5200	8.4	10.0	11.0	10	8.0	82	.7	1900	1400

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
OCT											
21...	320	340	720	6.7	17	638	0	3200	27	.3	6.4
FEB											
17...	260	230	540	5.9	17	577	0	2200	17	.3	11
MAY											
04...	290	290	720	7.2	15	623	0	2900	16	.4	4.0

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)
OCT											
21...	4950	6.73	.80	.05	.09	1.1	1.2	1.3	.05	140	10
FEB											
17...	3560	4.84	2.88	.15	.08	2.1	2.2	2.4	.05	130	80
MAY											
04...	4540	6.17	2.57	.06	.01	.23	.24	.30	.03	130	30

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
OCT								
21...	1315	140	0	10	10	60	70	220

DATE	TOTAL LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)
OCT								
21...	200	220	180	.0	5	200	0	40

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT					
21...	1315	8.5	.06	13	.00
FEB					
17...	1400	.0	.30	67	.05
MAY					
04...	0900	11.0	.21	40	.02

06309200 MIDDLE FORK POWDER RIVER NEAR BARNUM, WY

LOCATION.--Lat 43°34'40", long 107°08'16", in SE¼SW¼NE¼ sec.26, T.42 N., R.86 W., Washakie County, Hydrologic Unit 10090201, on left bank 1,100 ft (335 m) downstream from Rock Creek and 13 mi (21 km) southwest of Barnum.

DRAINAGE AREA.--45.2 mi^2 (117 km^2).

PERIOD OF RECORD.--September 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,220 ft (2,201 m), from topographic map. Prior to Oct. 1, 1970, at site 900 ft (274 m) upstream at different datum.

REMARKS.--Records fair except those during November and March, which are poor. No diversion above station.

AVERAGE DISCHARGE.--15 years, 33.2 ft^3/s (0.940 m^3/s), 24,050 acre-ft/yr (29.7 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,110 ft^3/s (201 m^3/s) June 15, 1963, gage height, 12.6 ft (3.84 m), from floodmark, site and datum then in use, on basis of slope-area measurement of peak flow; minimum daily, 1.0 ft^3/s (0.028 m^3/s) Dec. 15, 16, 1964, Jan. 24-27, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.66 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 10	1930	360	10.2	3.17	0.966
May 14	2030	*396	11.2	3.31	1.009

Minimum daily discharge, 4.4 ft^3/s (0.125 m^3/s) Mar. 13, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.6	7.2	6.3	5.8	5.5	5.5	5.8	20	93	26	14	6.3
2	7.2	6.9	6.9	6.0	5.5	5.4	5.5	25	86	27	22	6.0
3	6.9	6.9	6.9	6.0	5.5	5.2	6.4	32	77	27	15	5.8
4	6.6	6.6	6.9	5.8	5.5	4.9	7.0	48	69	23	11	6.0
5	6.6	6.6	6.6	5.8	5.5	4.6	8.0	63	63	22	9.4	6.0
6	6.6	6.6	6.6	5.8	5.5	4.6	9.0	63	62	20	9.0	6.3
7	6.6	6.3	6.6	5.8	5.5	4.6	9.0	82	54	19	8.3	7.2
8	6.9	6.3	6.6	5.8	5.2	4.6	11	122	49	18	7.9	7.2
9	9.7	5.3	6.6	5.8	4.9	4.6	14	161	44	17	7.9	7.2
10	11	5.4	6.6	5.8	4.9	4.9	13	243	39	16	7.6	6.9
11	11	5.1	6.3	5.5	5.2	4.6	16	289	37	15	7.6	6.6
12	10	5.4	6.3	5.5	5.2	4.6	20	213	38	15	7.2	7.2
13	10	6.1	6.6	5.5	5.2	4.4	23	195	36	14	6.9	7.2
14	9.7	6.9	6.3	5.5	5.2	4.5	23	263	36	14	6.9	7.2
15	9.4	7.2	6.0	5.5	5.2	4.6	25	213	51	13	6.9	6.9
16	9.7	7.2	6.0	5.5	5.2	4.6	23	153	63	13	6.6	6.6
17	9.4	6.6	6.0	5.8	4.9	4.9	17	147	68	12	6.6	6.6
18	9.7	6.1	6.0	5.5	4.9	5.5	16	185	54	11	6.6	7.2
19	9.4	5.6	6.0	5.2	5.2	5.2	14	205	52	11	6.6	9.7
20	7.6	5.2	6.0	5.5	5.5	4.9	13	190	53	16	6.3	8.3
21	7.6	4.9	6.0	5.5	5.5	5.2	13	163	50	14	6.0	7.9
22	7.6	4.9	6.0	5.5	5.5	4.6	17	163	49	11	6.3	7.6
23	7.6	5.2	6.0	5.5	5.5	4.6	19	163	61	10	6.3	9.4
24	7.2	5.5	6.0	5.5	5.5	4.6	17	146	47	9.7	6.3	7.2
25	6.4	5.5	6.0	5.5	5.5	4.9	19	130	40	9.7	6.3	7.6
26	7.0	6.0	6.0	5.5	5.8	4.9	26	117	41	9.7	6.3	8.3
27	7.0	6.3	5.8	5.5	5.8	4.9	21	106	36	9.7	6.6	10
28	6.5	6.6	6.0	5.5	5.5	4.6	18	102	32	9.0	6.3	8.6
29	6.8	6.6	6.0	5.5	5.5	4.4	16	114	30	9.7	6.3	7.6
30	7.2	6.3	6.0	5.5	---	4.6	16	122	28	9.4	6.3	6.9
31	7.6	---	5.8	5.5	---	4.9	---	105	---	9.4	6.3	---
TOTAL	250.1	183.3	193.7	173.9	155.3	148.9	460.7	4343	1538	460.3	249.6	219.5
MEAN	8.07	6.11	6.25	5.61	5.36	4.80	15.4	140	51.3	14.8	8.05	7.32
MAX	11	7.2	6.9	6.0	5.8	5.5	26	289	93	27	22	10
MIN	6.4	4.9	5.8	5.2	4.9	4.4	5.5	20	28	9.0	6.0	5.8
AC-FT	496	364	384	345	308	295	914	8610	3050	913	495	435

CAL YR 1975 TOTAL 15030.7 MEAN 41.2 MAX 533 MIN 4.3 AC-FT 29810
WTR YR 1976 TOTAL 8376.3 MEAN 22.9 MAX 289 MIN 4.4 AC-FT 16610

06309260 BUFFALO CREEK ABOVE NORTH FORK BUFFALO CREEK, NEAR ARMINTO, WY

LOCATION.--Lat 43°25'33", long 107°11'18", in SW¼NW¼NE¼ sec.20, T.40 N., R.86 W., Natrona County, Hydrologic Unit 10090201, on left bank 150 ft (46 m) downstream from South Fork, 0.8 mi (1.3 km) upstream from North Fork, and 17.5 mi (28.2 km) north of Arminto.

DRAINAGE AREA.--8.80 mi² (22.8 km²).

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,660 ft (2,335 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 117 ft³/s (3.31 m³/s) June 18, 1975, gage height, 2.02 ft (0.616 m); maximum gage height, 3.25 ft (0.991 m) Dec. 21, 1974 (backwater from ice); minimum daily discharge, 0.16 ft³/s (0.005 m³/s) Jan. 11, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 56 ft³/s (1.59 m³/s) May 14, gage height, 1.75 ft (0.533 m); maximum gage height, 2.56 ft (0.780 m) Jan. 4 (backwater from ice); minimum daily discharge, 0.19 ft³/s (0.005 m³/s) Jan. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.38	.64	.34	.28	.30	.36	.38	1.1	11	3.8	1.1	.49
2	.36	.63	.38	.24	.30	.36	.43	1.5	9.9	3.7	1.3	.47
3	.36	.63	.38	.19	.30	.34	.41	2.5	9.0	3.7	.93	.47
4	.36	.63	.38	.21	.27	.36	.49	5.5	9.0	3.2	.78	.47
5	.34	.63	.38	.31	.24	.34	.59	6.2	9.0	2.6	.72	.45
6	.36	.59	.41	.29	.26	.36	.66	7.6	9.0	2.3	.69	.45
7	.34	.53	.41	.28	.30	.38	.56	9.9	8.0	2.3	.67	.63
8	1.2	.51	.41	.30	.35	.38	.59	19	6.8	2.6	.67	.59
9	.59	.48	.41	.30	.40	.38	.76	20	6.4	2.3	.66	.52
10	.52	.49	.41	.30	.38	.36	.80	26	5.7	1.8	.64	.49
11	.59	.47	.43	.28	.34	.34	.88	22	4.8	1.6	.63	.49
12	.52	.44	.41	.28	.38	.31	1.2	13	4.5	1.6	.61	.56
13	.52	.48	.38	.28	.34	.32	1.4	14	4.8	1.7	.57	.56
14	.49	.48	.36	.27	.34	.30	1.8	24	4.8	1.4	.53	.49
15	.49	.47	.41	.31	.34	.31	1.8	17	7.1	1.2	.51	.47
16	.49	.47	.41	.32	.34	.32	1.2	12	11	1.1	.50	.45
17	.59	.40	.34	.30	.34	.36	.83	15	10	.99	.49	.47
18	.66	.41	.34	.30	.34	.38	.73	19	8.3	.93	.52	.49
19	.63	.37	.34	.32	.34	.34	.63	24	8.0	.88	.52	.69
20	.56	.34	.34	.32	.36	.34	.66	24	7.6	1.0	.47	.59
21	.56	.36	.34	.30	.34	.34	.76	19	7.6	1.1	.47	.52
22	.56	.39	.32	.30	.34	.34	1.2	22	8.0	.88	.49	.52
23	.58	.41	.30	.30	.32	.34	1.4	22	11	.83	.47	.80
24	.53	.42	.25	.30	.32	.34	1.2	20	7.3	.80	.49	.56
25	.50	.40	.28	.29	.34	.36	1.3	19	6.2	.80	.49	.56
26	.57	.37	.30	.26	.34	.34	1.4	20	6.2	.78	.52	.66
27	.59	.37	.32	.28	.36	.36	1.3	16	5.5	.75	.56	.83
28	.61	.34	.31	.29	.34	.36	1.3	15	4.7	.70	.52	.69
29	.65	.30	.30	.30	.36	.36	1.0	14	4.5	.75	.49	.52
30	.69	.32	.32	.30	---	.36	1.0	12	4.2	.73	.49	.49
31	.66	---	.31	.30	---	.36	---	13	---	.73	.49	---
TOTAL	16.85	13.77	11.02	8.90	9.62	10.80	28.66	475.3	220.1	49.55	18.99	16.44
MEAN	.54	.46	.36	.29	.33	.35	.96	15.3	7.34	1.60	.61	.55
MAX	1.2	.64	.43	.32	.40	.38	1.8	26	11	3.8	1.3	.83
MIN	.34	.30	.25	.19	.24	.30	.38	1.1	4.2	.70	.47	.45
AC-FT	33	27	22	18	19	21	57	943	437	98	38	33

CAL YR 1975 TOTAL 1781.01 MEAN 4.88 MAX 65 MIN .16 AC-FT 3530
WTR YR 1976 TOTAL 880.00 MEAN 2.40 MAX 26 MIN .19 AC-FT 1750

06309270 NORTH FORK BUFFALO CREEK NEAR ARMINTO, WY

LOCATION.--Lat 43°26'11", long 107°10'58", in SE¼SE¼NE¼ sec.17, T.40 N., R.86 W., Natrona County, Hydrologic Unit 10090201, on right bank 1.3 mi (2.1 km) upstream from mouth and 18.5 mi (29.8 km) north of Arminto.

DRAINAGE AREA.--8.10 mi² (21.0 km²).

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,720 ft (2,353 m), from topographic map.

REMARKS.--Records poor. No gage-height record Jan. 20 to Apr. 7. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 201 ft³/s (5.69 m³/s) June 18, 1975, gage height, 2.64 ft (0.805 m); minimum daily, 0.52 ft³/s (0.015 m³/s) Jan. 1, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 78 ft³/s (2.21 m³/s) May 10, gage height, about 2.00 ft (0.610 m); maximum gage height, 2.02 ft (0.616 m) May 19; minimum daily discharge, 0.80 ft³/s (0.023 m³/s) Nov. 11, 19, Feb. 5, 6, Mar. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	1.6	1.2	1.1	1.0	.90	1.0	7.8	13	4.0	3.2	1.4
2	1.6	1.4	1.3	1.1	1.0	.90	1.0	9.3	12	5.8	3.7	1.3
3	1.6	1.3	1.3	1.1	1.0	.80	.90	11	11	5.3	2.5	1.3
4	1.6	1.2	1.3	1.1	.90	.90	1.0	15	10	4.2	2.2	1.3
5	1.7	1.2	1.3	1.1	.80	.90	1.0	17	10	3.8	2.1	1.3
6	1.7	1.2	1.2	1.1	.80	.90	1.1	16	9.3	3.7	2.0	1.4
7	1.7	1.0	1.2	1.1	.90	1.0	1.1	18	8.3	3.6	2.0	1.7
8	1.2	1.0	1.2	1.1	1.0	1.0	1.2	24	7.5	3.4	2.0	1.5
9	2.1	.90	1.2	1.1	1.0	1.0	1.5	35	6.4	3.2	2.0	1.5
10	2.2	.90	1.2	1.1	1.0	1.1	1.7	54	6.1	3.1	2.0	1.4
11	1.8	.80	1.2	1.1	.90	1.0	2.1	47	5.7	3.1	2.0	1.4
12	1.7	.90	1.2	1.0	1.0	.90	3.1	30	5.5	3.0	2.0	1.5
13	1.7	1.0	1.1	1.0	1.0	1.0	3.2	26	5.3	2.8	1.8	1.5
14	1.7	1.1	1.1	1.0	1.0	.90	3.2	43	3.8	2.8	1.7	1.4
15	2.1	1.1	1.0	1.1	1.0	.90	3.1	38	7.2	2.6	1.7	1.4
16	1.6	1.1	1.1	1.2	1.0	1.0	3.0	22	12	2.5	1.7	1.4
17	1.6	1.1	1.1	1.1	1.0	1.0	2.5	19	14	2.4	1.7	1.3
18	1.6	1.0	1.1	1.0	1.0	1.1	4.4	29	11	2.3	1.6	1.5
19	1.5	.80	1.1	1.0	1.0	1.0	4.6	43	11	2.3	1.6	1.8
20	1.4	1.0	1.1	1.0	1.0	.90	5.3	43	10	2.6	1.5	1.4
21	1.4	1.1	1.1	1.0	1.0	1.0	6.7	33	7.8	2.5	1.5	1.3
22	1.4	1.0	1.1	1.0	1.0	1.0	8.1	36	7.2	2.2	1.5	1.4
23	1.4	1.0	1.1	1.0	1.0	1.1	8.3	33	10	2.1	1.5	2.1
24	1.4	1.0	1.1	.90	1.1	1.2	7.5	29	7.2	2.0	1.5	1.5
25	1.3	1.0	1.1	.90	1.1	1.1	8.3	29	5.9	2.1	1.4	1.4
26	1.4	1.0	1.1	.90	1.1	1.0	9.6	24	5.9	2.0	1.5	1.6
27	1.4	1.0	1.1	1.0	1.1	1.0	6.9	22	5.3	2.0	1.5	1.8
28	1.3	1.0	1.1	1.0	1.0	.90	8.9	22	4.8	1.8	1.4	1.4
29	1.4	1.0	1.1	1.1	1.0	.90	7.5	19	4.6	2.0	1.4	1.3
30	1.7	1.1	1.1	1.0	---	.90	6.9	16	4.4	2.0	1.4	1.2
31	1.7	---	1.1	1.0	---	.90	---	14	---	2.0	1.4	---
TOTAL	49.6	31.80	35.6	32.30	28.70	30.10	124.70	824.1	242.2	89.2	57.0	43.7
MEAN	1.60	1.06	1.15	1.04	.99	.97	4.16	26.6	8.07	2.88	1.84	1.46
MAX	2.2	1.6	1.3	1.2	1.1	1.2	9.6	54	14	5.8	3.7	2.1
MIN	1.2	.80	1.0	.90	.80	.80	.90	7.8	3.8	1.8	1.4	1.2
AC-FT	98	63	71	64	57	60	247	1630	480	177	113	87

CAL YR 1975 TOTAL 2703.97 MEAN 7.41 MAX 105 MIN .52 AC-FT 5360
WTR YR 1976 TOTAL 1589.00 MEAN 4.34 MAX 54 MIN .80 AC-FT 3150

06309280 BUFFALO CREEK BELOW NORTH FORK BUFFALO CREEK, NEAR ARMINTO, WY

LOCATION.--Lat 43°25'08", long 107°09'59", in NE¼NW¼SE¼ sec.21, T.40 N., R.86 W., Natrona County, Hydrologic Unit 10090201, on left bank 0.3 mi (0.5 km) downstream from North Fork, 1.8 mi (2.9 km) upstream from Pine Creek, and 17.5 mi (28.2 km) north of Arminto.

DRAINAGE AREA.--18.6 mi^2 (48.2 km^2).

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,500 ft (2,286 m), from topographic map.

REMARKS.--Records poor. No gage-height record May 5-19. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 295 ft^3/s (8.35 m^3/s) June 18, 1975, gage height, 2.16 ft (0.658 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 124 ft^3/s (3.51 m^3/s) May 14, gage height, 1.71 ft (0.521 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								0	18	.60	0	
2								0	16	1.1	.40	
3								0	14	1.1	0	
4								.10	13	.50	0	
5								12	11	0	0	
6								13	10	0	0	
7								17	8.4	0	0	
8								32	6.8	0	0	
9								44	5.6	0	0	
10								69	4.3	0	0	
11								58	3.0	0	0	
12								32	2.5	0	0	
13								29	2.6	0	0	
14								56	1.1	0	0	
15								44	7.0	0	0	
16								23	16	0	0	
17								23	16	0	0	
18								37	12	0	0	
19								56	12	0	0	
20								62	10	0	0	
21								48	7.9	0	0	
22								47	5.8	0	0	
23								41	11	0	0	
24								38	6.4	0	0	
25								34	4.2	0	0	
26								30	3.4	0	0	
27								26	2.8	0	0	
28								26	2.0	0	0	
29								22	1.7	0	0	
30					---			18	1.2	0	0	
31		---			---		---	18	---	0	0	---
TOTAL	0	0	0	0	0	0	0	955.10	235.7	3.30	.40	0
MEAN	0	0	0	0	0	0	0	30.8	7.86	.11	.013	0
MAX	0	0	0	0	0	0	0	69	18	1.1	.40	0
MIN	0	0	0	0	0	0	0	0	1.1	0	0	0
AC-FT	0	0	0	0	0	0	0	1890	468	6.5	.8	0

CAL YR 1975 TOTAL 2876.10 MEAN 7.88 MAX 135 MIN 0 AC-FT 5700
WTR YR 1976 TOTAL 1194.50 MEAN 3.26 MAX 69 MIN 0 AC-FT 2370

06309450 BEAVER CREEK BELOW BAYER CREEK, NEAR BARNUM, WY

LOCATION.--Lat 43°39'54", long 107°03'45", in SE¼SE¼NW¼ sec.28, T.43 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on right bank 0.3 mi (0.5 km) downstream from Bayer Creek and 7.7 mi (12.4 km) west of Barnum.

DRAINAGE AREA.--10.9 mi (28.2 km).

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,020 ft (2,140 m), from topographic map.

REMARKS.--Records fair except those for November to May and those for period of no gage-height record, Mar. 4 to Apr. 9, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 148 ft^3/s (4.19 m^3/s) Aug. 4, 1976, gage height, 2.19 ft (0.668 m); minimum daily, 0.80 ft^3/s (0.023 m^3/s) Dec. 30, 31, 1974, Jan. 2, 10-12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 148 ft^3/s (4.19 m^3/s) Aug. 4, gage height, 2.19 ft (0.668 m); minimum daily, 1.4 ft^3/s (0.040 m^3/s) Feb. 26-28, Mar. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.8	3.4	2.1	2.0	1.8	1.4	2.6	10	21	8.3	6.6	3.4
2	3.6	3.2	2.2	2.1	1.8	1.4	2.8	12	20	8.6	8.6	3.2
3	3.4	3.4	2.2	2.0	1.8	1.5	3.1	15	19	8.3	7.2	3.0
4	3.2	3.4	2.6	2.1	1.9	1.5	3.3	19	19	7.6	8.9	3.0
5	3.4	3.2	2.6	2.6	1.8	1.5	3.6	28	20	7.9	6.3	2.8
6	3.2	3.2	2.6	2.4	1.8	1.5	3.9	26	20	7.9	6.0	2.8
7	3.2	3.0	2.6	2.1	1.8	1.5	4.3	30	18	7.9	5.1	3.4
8	7.2	2.8	2.6	2.1	1.8	1.6	5.2	30	15	7.6	5.4	3.2
9	3.8	2.0	2.8	2.1	1.7	1.7	6.2	30	15	7.2	5.1	3.2
10	4.5	2.2	2.8	2.1	1.7	1.8	7.2	32	16	6.9	5.1	2.6
11	4.2	2.5	2.8	2.4	1.8	1.7	10	36	16	6.9	4.8	2.6
12	4.0	2.8	2.8	2.3	1.8	1.6	11	24	17	6.9	4.5	3.0
13	3.6	3.0	3.0	2.2	1.8	1.7	10	27	17	6.9	4.2	3.2
14	3.4	3.2	2.5	2.1	1.8	1.7	10	32	19	6.6	4.0	3.0
15	3.8	3.2	2.6	2.5	1.8	1.7	13	27	22	6.6	4.0	3.0
16	3.8	3.0	2.5	2.6	1.8	1.8	9.7	26	17	6.3	4.0	2.8
17	3.8	3.0	2.0	2.4	1.7	1.9	7.2	27	15	6.0	3.8	2.6
18	3.6	2.8	2.3	2.2	1.8	2.0	7.2	28	15	6.0	4.0	2.2
19	3.4	2.5	2.5	2.4	1.9	2.0	6.8	31	13	5.7	3.8	2.6
20	3.6	2.3	2.4	2.2	1.9	1.9	6.6	30	12	8.3	3.6	2.2
21	3.6	2.3	2.6	2.1	1.9	1.9	6.6	27	13	7.2	3.6	2.1
22	3.6	2.4	2.4	2.1	1.8	2.0	7.8	29	13	6.0	3.6	2.1
23	3.6	2.4	2.4	2.1	1.6	2.1	9.0	30	15	6.0	3.6	3.0
24	3.2	2.4	2.4	2.1	1.6	2.2	8.6	31	12	5.7	3.8	2.1
25	3.0	2.0	2.2	2.1	1.5	2.1	9.6	29	11	5.7	3.6	2.1
26	3.5	1.6	2.2	2.0	1.4	2.1	12	26	12	6.3	3.8	2.8
27	3.3	1.5	2.4	2.0	1.4	2.1	13	24	10	6.0	3.6	2.4
28	3.2	1.7	2.4	1.9	1.4	2.1	14	24	9.4	5.4	3.6	2.1
29	3.4	1.7	2.1	2.2	1.5	2.1	12	34	9.4	5.4	3.4	2.1
30	3.6	1.8	2.1	1.9	---	2.2	10	23	8.6	5.1	3.4	2.1
31	3.4	---	2.2	1.8	---	2.4	---	22	---	5.4	3.6	---
TOTAL	113.9	77.9	75.9	67.2	50.1	56.7	236.3	819	459.4	208.6	144.6	80.7
MEAN	3.67	2.60	2.45	2.17	1.73	1.83	7.88	26.4	15.3	6.73	4.66	2.69
MAX	7.2	3.4	3.0	2.6	1.9	2.4	14	36	22	8.6	8.9	3.4
MIN	3.0	1.5	2.0	1.8	1.4	1.4	2.6	10	8.6	5.1	3.4	2.1
AC-FT	226	155	151	133	99	112	469	1620	911	414	287	160

CAL YR 1975 TOTAL 3367.00 MEAN 9.22 MAX 62 MIN .80 AC-FT 6680
WTR YR 1976 TOTAL 2390.30 MEAN 6.53 MAX 36 MIN 1.4 AC-FT 4740

06309460 BEAVER CREEK ABOVE WHITE PANTHER DITCH, NEAR BARNUM, WY

LOCATION.--Lat 43°41'52", long 106°56'52", in SE¼SW¼NW¼ sec.16, T.43 N., R.84 W., Johnson County, Hydrologic Unit 10090201, on right bank 0.1 mi (0.2 km) upstream from White Panther ditch and 3.0 mi (4.8 km) northwest of Barnum.

DRAINAGE AREA.--24.2 mi² (62.7 km²).

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,350 ft (1,631 m), from topographic map.

REMARKS.--Records good during May and June and poor during rest of year and for periods of no gage-height record, Jan. 24 to Mar. 3, Aug. 5 to Sept. 16. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 222 ft³/s (6.29 m³/s) June 18, 1975, gage height, 2.00 ft (0.610 m); maximum gage height, 3.22 ft (0.981 m) Jan. 12, 1975 (backwater from ice); minimum daily discharge, 5.6 ft³/s (0.16 m³/s) Jan. 12, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 118 ft³/s (3.34 m³/s) May 29, gage height, 1.67 ft (0.509 m); minimum daily, 7.8 ft³/s (0.22 m³/s) Feb. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	12	8.9	8.7	9.2	8.2	8.4	14	30	17	16	12
2	13	11	9.8	8.2	9.2	8.0	8.4	15	29	17	17	11
3	14	11	10	8.4	8.9	8.4	8.7	17	27	17	15	11
4	13	11	9.8	8.8	8.2	8.6	9.3	24	26	16	17	11
5	13	11	9.3	9.2	7.8	8.4	11	32	26	16	14	10
6	13	11	9.0	8.5	8.0	9.0	10	30	27	16	13	10
7	13	10	8.7	8.0	8.9	9.0	10	30	25	16	12	12
8	25	10	8.4	8.2	9.4	9.0	11	36	24	16	15	11
9	14	10	8.1	8.6	10	9.0	13	36	23	16	14	11
10	16	11	8.1	9.0	9.6	9.0	14	37	21	16	14	10
11	15	11	8.7	8.4	8.5	8.7	16	45	21	16	13	10
12	14	10	8.7	9.3	8.8	8.4	18	32	22	15	13	11
13	13	10	8.7	8.1	9.4	9.3	21	33	22	15	13	12
14	12	10	8.7	8.1	9.5	9.0	20	42	23	15	12	11
15	13	11	8.7	8.1	9.4	8.7	20	38	30	15	12	11
16	14	10	9.0	8.4	9.4	8.4	21	35	27	15	12	10
17	13	10	9.3	8.4	9.2	8.4	15	34	24	14	11	10
18	13	10	9.3	8.4	9.0	8.4	16	36	23	14	12	10
19	12	9.8	9.3	8.7	9.0	8.4	14	42	22	14	12	11
20	13	9.8	9.3	8.4	8.8	8.7	13	42	20	18	11	11
21	13	9.8	9.3	8.4	8.6	8.7	13	40	19	20	11	10
22	13	9.8	9.3	8.1	8.8	8.7	14	41	19	18	11	10
23	13	9.8	9.3	8.4	9.2	8.7	15	44	22	16	11	11
24	11	9.6	9.3	8.4	9.3	9.0	14	43	20	15	13	11
25	11	9.6	9.0	8.3	9.2	9.3	14	42	19	15	12	11
26	12	9.6	9.0	8.0	9.2	9.0	17	37	19	16	13	11
27	11	9.6	9.3	8.1	9.2	9.0	18	34	18	15	12	11
28	11	9.8	9.3	8.3	8.5	8.7	18	33	19	15	12	10
29	12	9.6	9.6	9.0	8.4	8.1	16	49	18	14	11	9.8
30	13	8.5	9.6	9.3	---	8.4	14	40	17	14	11	9.8
31	12	---	9.3	9.2	---	8.4	---	33	---	15	13	---
TOTAL	411	305.3	282.1	263.4	260.6	269.0	430.8	1086	682	487	398	320.6
MEAN	13.3	10.2	9.10	8.50	8.99	8.68	14.4	35.0	22.7	15.7	12.8	10.7
MAX	25	12	10	9.3	10	9.3	21	49	30	20	17	12
MIN	11	8.5	8.1	8.0	7.8	8.0	8.4	14	17	14	11	9.8
AC-FT	815	606	560	522	517	534	854	2150	1350	966	789	636

CAL YR 1975 TOTAL 6637.4 MEAN 18.2 MAX 109 MIN 5.6 AC-FT 13170
WTR YR 1976 TOTAL 5195.8 MEAN 14.2 MAX 49 MIN 7.8 AC-FT 10310

06311000 NORTH FORK POWDER RIVER NEAR HAZELTON, WY

LOCATION.--Lat 44°01'43", long 107°04'55", in NW¼SE¼NW¼ sec.21, T.47 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on right bank 0.5 mi (0.8 km) downstream from Twin Creek, 0.7 mi (1.1 km) upstream from Dullknife Reservoir, 7.2 mi (11.6 km) southwest of Hazelton, and 19 mi (31 km) northwest of Mayoworth.

DRAINAGE AREA.--24.5 mi^2 (63.5 km^2).

PERIOD OF RECORD.--September 1946 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1279: 1947-48(M), 1949, 1950-51(M), 1952.

GAGE.--Water-stage recorder. Altitude of gage is 8,180 ft (2,493 m), from topographic map. Prior to Oct. 1, 1966, at site 0.8 mi (1.3 km) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station.

AVERAGE DISCHARGE.--30 years, 14.6 ft^3/s (0.413 m^3/s), 10,580 acre-ft/yr (13.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 886 ft^3/s (25.1 m^3/s) June 15, 1953, gage height, 4.34 ft (1.323 m), site and datum then in use, from rating curve extended above 110 ft^3/s (3.12 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 6.07 ft (1.850 m) May 17, 1975 (backwater from ice and footbridge); minimum daily discharge, 0.60 ft^3/s (0.017 m^3/s) Oct. 30, 1960, Apr. 9, 12, 15-17, 1961, but may have been less during winter months of water years 1947-48.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 190 ft^3/s (5.38 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 11	1000	ice jam		*4.28	1.305
May 19	2000	*308	8.72	3.71	1.131

Minimum daily discharge, 1.8 ft^3/s (0.051 m^3/s) Mar. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9	4.4	3.2	2.0	2.3	2.0	2.6	4.6	112	30	20	5.7
2	5.1	4.4	3.2	2.1	2.3	1.8	2.5	5.0	109	29	41	5.2
3	4.9	4.4	3.2	2.2	2.2	2.0	2.4	7.0	102	32	21	4.9
4	4.6	4.4	3.2	2.4	2.0	2.2	2.5	9.0	101	26	18	4.7
5	4.4	4.4	3.0	2.6	1.9	2.3	2.8	10	98	24	13	4.7
6	4.4	4.2	3.0	2.4	2.1	2.4	3.1	9.0	94	23	11	4.7
7	4.2	4.0	3.0	2.0	2.3	2.4	3.5	9.0	91	22	10	7.2
8	4.6	3.4	3.0	2.1	2.5	2.4	3.3	11	83	21	9.1	7.2
9	4.4	2.8	3.0	2.2	2.4	2.4	3.6	14	71	20	9.1	6.0
10	4.6	2.8	3.0	2.3	2.3	2.4	4.0	16	63	18	9.1	5.4
11	4.4	3.0	3.0	2.3	2.3	2.3	3.8	50	58	18	9.1	5.2
12	4.4	3.0	2.8	2.3	2.3	2.2	4.0	40	73	18	8.8	5.2
13	4.4	3.5	2.6	2.2	2.3	2.3	5.0	40	68	18	8.1	5.7
14	4.8	3.8	2.4	2.1	2.3	2.3	4.8	69	63	16	8.1	5.2
15	4.6	3.8	2.6	2.1	2.2	2.3	4.6	61	78	16	7.8	4.9
16	5.2	3.8	2.6	2.1	2.2	2.4	4.8	47	76	15	7.5	4.9
17	4.8	3.8	2.4	2.1	2.2	2.5	4.0	60	80	14	7.5	4.7
18	5.0	3.6	3.1	2.0	2.2	2.5	4.2	104	70	14	7.5	4.7
19	5.0	3.0	3.2	1.9	2.2	2.5	4.0	161	60	14	7.2	11
20	4.8	2.4	3.0	2.0	2.1	2.4	3.8	202	55	14	6.6	7.5
21	4.8	2.6	2.9	2.1	2.1	2.4	4.0	157	49	15	6.0	5.7
22	4.8	2.8	2.8	2.2	2.2	2.5	3.8	170	51	13	6.0	5.2
23	4.5	2.9	2.7	2.2	2.2	2.5	4.0	136	64	12	5.7	8.4
24	4.0	2.7	2.8	2.2	2.2	2.4	4.0	143	47	11	5.7	7.5
25	3.6	2.6	3.0	2.0	2.2	2.3	4.0	136	43	11	5.7	9.5
26	4.4	2.8	3.0	2.0	2.2	2.3	4.4	128	42	11	5.7	13
27	4.2	3.0	2.8	2.1	2.2	2.3	4.2	135	37	11	6.3	9.9
28	3.8	3.0	2.8	2.2	2.2	2.3	4.0	140	34	11	5.7	8.8
29	4.0	2.5	2.7	2.3	2.1	2.2	4.2	143	32	9.9	5.4	7.5
30	4.4	2.4	2.7	2.3	---	2.3	4.2	121	32	9.5	5.2	6.3
31	4.6	---	2.6	2.3	---	2.4	---	108	---	9.5	5.4	---
TOTAL	140.6	100.2	89.3	67.3	64.2	71.9	114.1	2445.6	2036	525.9	302.3	196.5
MEAN	4.54	3.34	2.88	2.17	2.21	2.32	3.80	78.9	67.9	17.0	9.75	6.55
MAX	5.2	4.4	3.2	2.6	2.5	2.5	5.0	202	112	32	41	13
MIN	3.6	2.4	2.4	1.9	1.9	1.8	2.4	4.6	32	9.5	5.2	4.7
AC-FT	279	199	177	133	127	143	226	4850	4040	1040	600	390

CAL YR 1975 TOTAL 8076.2 MEAN 22.1 MAX 250 MIN 1.3 AC-FT 16020
WTR YR 1976 TOTAL 6153.9 MEAN 16.8 MAX 202 MIN 1.8 AC-FT 12210

06311060 NORTH FORK POWDER RIVER BELOW BULL CREEK, NEAR HAZELTON, WY

LOCATION.--Lat 44°00'29", long 107°01'08", in NE¼SE¼SW¼ sec.25, T.47 N., R.85 W., Johnson County, Hydrologic Unit 10090201, on right bank 20 ft (6 m) downstream from Bull Creek, 2.1 mi (3.4 km) downstream from Dullknife Reservoir, and 6.8 mi (10.9 km) southwest of Hazelton.

DRAINAGE AREA.--32.3 mi^2 (83.7 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,840 ft (2,390 m), from topographic map.

REMARKS.--Records fair except those for November to March, which are poor. Flow regulated by Dullknife Reservoir 2.1 mi (3.4 km) upstream, capacity, 4,350 acre-ft (5.36 hm^3).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 415 ft^3/s (11.8 m^3/s) May 25, 1976, gage height, 4.17 ft (1.271 m); minimum daily, 1.4 ft^3/s (0.040 m^3/s) Feb. 5, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 415 ft^3/s (11.8 m^3/s) May 25, gage height, 4.17 ft (1.271 m); minimum daily, 2.0 ft^3/s (0.057 m^3/s) Nov. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	3.7	3.6	2.5	3.1	3.1	3.2	4.5	175	33	16	20
2	3.4	3.4	3.4	2.7	3.1	3.1	3.1	5.1	73	31	23	20
3	3.4	3.6	3.4	3.0	3.1	3.2	3.3	6.1	41	33	20	20
4	3.4	3.6	3.4	3.3	3.0	3.1	3.4	8.1	27	29	18	20
5	3.4	3.6	3.4	3.6	2.9	2.8	3.4	8.1	15	27	18	20
6	3.4	3.4	3.4	3.1	2.7	3.0	3.6	6.6	15	25	18	20
7	3.4	3.4	3.4	2.8	2.7	3.2	3.4	8.4	53	23	18	20
8	3.4	3.4	3.4	3.0	2.8	3.3	3.6	12	89	23	18	20
9	3.6	3.0	3.6	3.3	3.0	3.4	3.8	14	77	23	18	20
10	3.6	3.0	3.4	3.3	3.0	3.4	3.8	41	66	22	18	20
11	3.4	3.4	3.6	3.2	2.8	3.4	4.5	63	60	29	18	20
12	3.4	3.2	3.4	3.2	3.0	3.3	5.1	57	71	45	18	22
13	3.4	3.5	3.4	3.0	3.0	3.2	5.1	63	73	44	17	24
14	3.6	3.6	3.2	3.0	3.0	3.1	5.1	70	71	42	16	24
15	3.7	3.6	2.8	3.0	2.9	3.1	5.3	56	73	42	16	24
16	3.7	3.7	2.8	3.0	2.8	3.0	5.1	52	84	41	16	24
17	3.7	3.5	3.2	3.0	2.8	3.0	4.5	59	81	41	16	24
18	3.6	3.4	3.4	2.9	2.8	3.1	4.2	60	77	40	16	24
19	3.4	3.2	3.4	2.9	2.7	3.1	4.0	61	68	39	16	26
20	3.4	2.0	3.4	2.9	2.7	3.4	4.3	63	59	40	16	29
21	3.4	2.1	3.4	3.0	2.7	3.6	4.0	61	52	40	16	29
22	3.6	2.2	3.4	3.1	2.7	3.7	4.3	65	52	40	17	29
23	3.6	2.3	3.4	3.2	2.8	3.7	4.3	62	70	37	21	31
24	4.0	2.4	3.5	3.0	3.0	3.7	4.5	68	54	36	21	29
25	3.7	2.4	3.5	2.9	3.2	3.4	4.7	121	46	35	21	26
26	4.0	2.4	3.2	2.7	3.2	3.7	5.3	318	43	32	21	21
27	3.8	2.5	3.0	2.8	3.2	3.7	4.8	238	41	33	20	21
28	3.6	2.5	3.0	2.9	3.1	3.6	4.4	187	37	32	20	20
29	3.7	2.4	3.0	3.0	3.0	3.6	4.2	214	34	32	20	20
30	3.8	3.2	3.0	3.0	---	3.6	4.3	255	34	32	20	20
31	3.7	---	2.9	3.1	---	3.4	---	224	---	18	20	---
TOTAL	110.6	91.6	102.3	93.4	84.8	103.0	126.6	2530.9	1811	1039	567	687
MEAN	3.57	3.05	3.30	3.01	2.92	3.32	4.22	81.6	60.4	33.5	18.3	22.9
MAX	4.0	3.7	3.6	3.6	3.2	3.7	5.3	318	175	45	23	31
MIN	3.4	2.0	2.8	2.5	2.7	2.8	3.1	4.5	15	18	16	20
AC-FT	219	182	203	185	168	204	251	5020	3590	2060	1120	1360

CAL YR 1975 TOTAL 8964.7 MEAN 24.6 MAX 228 MIN 1.4 AC-FT 17780
WTR YR 1976 TOTAL 7347.2 MEAN 20.1 MAX 318 MIN 2.0 AC-FT 14570

06311400 NORTH FORK POWDER RIVER BELOW PASS CREEK, NEAR MAYOWORTH, WY

LOCATION.--Lat 43°54'41", long 106°53'20", in NW¼NE¼SE¼ sec.36, T.46 N., R.84 W., Johnson County, Hydrologic Unit 10090201, on left bank 0.8 mi (1.3 km) downstream from Pass Creek, 1.2 mi (1.9 km) upstream from Hat Ranch, 7.2 mi (11.6 km) northwest of Mayoworth, and 13 mi (21 km) downstream from Dullknife Reservoir.

DRAINAGE AREA.--100 mi² (259 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,700 ft (1,737 m), from topographic map.

REMARKS.--Records fair except those for August and September, which are poor. Some regulation for irrigation by Dullknife Reservoir 13 mi (21 km) upstream, capacity, 4,350 acre-ft (5.36 hm³).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 890 ft³/s (25.2 m³/s) July 31, 1974, gage height, 7.10 ft (2.164 m), from rating curve extended above 210 ft³/s (5.95 m³/s) on basis of comparison with station 1.2 mi (1.9 km) downstream; minimum daily, 13 ft³/s (0.37 m³/s) Feb. 5, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 276 ft³/s (7.82 m³/s) May 27, gage height, 5.23 ft (1.594 m); minimum daily, 15 ft³/s (0.42 m³/s) Mar. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	20	20	16	18	17	18	21	191	47	33	29
2	25	20	21	17	18	16	18	22	109	46	41	30
3	24	20	22	16	18	15	19	22	72	46	35	29
4	24	20	21	17	18	16	19	23	61	45	37	30
5	25	20	20	20	17	16	19	26	46	42	35	29
6	25	20	20	19	16	19	19	23	45	40	33	29
7	24	20	21	16	17	18	19	23	68	39	31	30
8	24	20	20	17	20	18	19	27	121	39	31	29
9	24	19	20	19	20	19	19	37	105	38	31	30
10	24	19	21	19	19	18	19	56	95	37	32	33
11	23	19	21	17	19	18	19	96	86	38	31	35
12	23	20	21	17	18	19	19	81	96	55	30	34
13	23	19	20	17	18	18	20	88	105	57	30	37
14	23	20	18	16	17	19	20	153	102	56	29	36
15	23	20	19	17	17	19	24	119	100	56	27	35
16	23	20	19	18	17	18	26	81	127	56	27	34
17	23	20	17	18	17	18	22	91	111	55	26	35
18	23	20	19	18	17	18	21	113	113	55	26	35
19	23	20	19	17	17	18	20	113	98	54	25	38
20	22	20	20	17	18	19	19	123	85	56	25	42
21	22	20	20	17	16	19	19	105	77	56	25	42
22	22	20	20	17	18	19	19	119	72	53	31	42
23	22	21	20	18	18	19	19	107	89	51	30	45
24	19	20	19	18	18	19	19	107	80	50	31	42
25	20	20	19	16	17	19	19	138	68	50	28	37
26	20	19	19	16	17	19	22	261	64	49	30	35
27	21	20	19	18	17	19	22	244	59	48	29	34
28	20	20	18	19	17	19	22	196	53	48	29	34
29	20	19	18	19	17	18	21	209	50	47	29	34
30	20	18	19	18	---	19	20	241	49	46	29	34
31	20	---	17	18	---	17	---	211	---	45	30	---
TOTAL	699	593	607	542	511	562	600	3276	2597	1500	936	1038
MEAN	22.5	19.8	19.6	17.5	17.6	18.1	20.0	106	86.6	48.4	30.2	34.6
MAX	25	21	22	20	20	19	26	261	191	57	41	45
MIN	19	18	17	16	16	15	18	21	45	37	25	29
AC-FT	1390	1180	1200	1080	1010	1110	1190	6500	5150	2980	1860	2060

CAL YR 1975 TOTAL 15999 MEAN 43.8 MAX 299 MIN 13 AC-FT 31730
WTR YR 1976 TOTAL 13461 MEAN 36.8 MAX 261 MIN 15 AC-FT 26700

06312500 POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°41'35", long 106°31'48", in NE¼NW¼SW¼ sec.13, T.43 N., R.81 W., Johnson County, Hydrologic Unit 10090202, at former gaging station at D Ranch, 600 ft (183 m) downstream from headgate of Sussex Irrigation Canal, 2.0 mi (3.2 km) downstream from confluence of North and Middle Forks, and 6.0 mi (9.7 km) east of Kaycee.

DRAINAGE AREA.--980 mi^2 (2,538 km^2), approximately.

PERIOD OF RECORD.--Water years 1946-47, 1949-54, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 07...	1400	7.0	15.0	3	9.6	110	530	330
NOV 12...	0915	6.5	1.0	6	12.0	810	510	310
DEC 10...	1045	110	2.0	80	10.6	49	460	270
JAN 14...	0900	21	.0	15	11.8	36	450	250
FEB 11...	1030	33	.5	65	11.8	26	380	210
MAR 12...	0945	105	.0	40	12.5	18	470	270
APR 14...	1045	140	7.5	120	10.2	B120	350	180
MAY 11...	1115	660	12.0	550	8.3	B1200	180	73
JUN 16...	1145	142	15.0	100	9.0	660	330	170
JUL 14...	0815	23	19.5	1500	7.5	B3400	390	270
AUG 10...	1030	23	19.0	50	7.5	390	580	380
SEP 07...	0900	3.2	14.0	5	8.1	220	520	350

B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 07...	130	49	110	2.1	3.5	240	0	197	470
NOV 12...	130	48	88	1.7	2.8	250	0	205	430
DEC 10...	120	40	75	1.5	3.3	230	0	189	360
JAN 14...	110	40	77	1.6	2.3	250	0	205	340
FEB 11...	96	35	80	1.8	3.5	210	0	172	330
MAR 12...	120	43	110	2.2	3.0	250	0	205	440
APR 14...	84	34	56	1.3	2.3	210	0	172	260
MAY 11...	47	14	24	.8	2.3	130	0	107	110
JUN 16...	75	35	69	1.6	3.3	200	0	164	270
JUL 14...	100	35	120	2.6	4.9	150	0	123	460
AUG 10...	150	49	110	2.0	3.3	250	0	205	520
SEP 07...	120	53	140	2.7	4.0	210	0	172	550

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 07...	52	.6	5.8	938	1.28	17.7	.02	.01
NOV 12...	51	.3	7.3	882	1.20	15.5	.14	.02
DEC 10...	41	.5	9.9	761	1.04	226	.36	.11
JAN 14...	45	.5	9.9	753	1.02	42.7	.56	.05
FEB 11...	37	.5	9.3	701	.95	62.5	.54	.06
MAR 12...	47	.6	9.3	899	1.22	255	.68	.04
APR 14...	33	.4	9.9	585	.80	221	.41	.15
MAY 11...	10	.2	8.6	281	.38	501	.45	.86
JUN 16...	27	.5	9.9	584	.79	224	.45	.14
JUL 14...	46	.9	7.2	853	1.16	53.0	.20	.67
AUG 10...	56	.7	9.7	1030	1.40	64.0	.00	.07
SEP 07...	78	.7	5.7	1060	1.44	9.16	.02	.01

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY

LOCATION.--Lat 43°37'10", long 106°34'36", in NE¼SE¼ sec.9, T.42 N., R.81 W., Johnson County, Hydrologic Unit 10090203, at former gaging station, 200 ft (61 m) upstream from bridge on old U.S. Highway 87, 0.6 mi (1.0 km) upstream from bridge on Interstate Highway 25, 1.2 mi (1.9 km) upstream from Murphy Creek, 6.6 mi (10.6 km) southeast of Kaycee, and 7.0 mi (11.3 km) upstream from mouth.

DRAINAGE AREA.--1,150 mi^2 (2,980 km^2), approximately.

PERIOD OF RECORD.--Water years 1949-53, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
OCT 07...	1530	.00	--	--	--	--	--	--	--	--	--	--
NOV 12...	1030	.00	--	--	--	--	--	--	--	--	--	--
DEC 10...	0900	E1.0	3400	8.2	2.5	200	10.4	40	1100	950	310	70
JAN 14...	1000	.00	--	--	--	--	--	--	--	--	--	--
FEB 11...	0900	E3.0	2300	8.2	.5	160	11.8	56	650	540	180	52
MAR 12...	0900	E5.0	3200	8.0	.0	120	12.8	814	890	760	250	63
APR 14...	0930	18	4200	8.2	5.5	480	10.4	98	970	800	260	78
MAY 11...	1015	E3.0	3500	8.2	16.0	20	8.2	8420	1000	840	290	76
JUN 16...	1035	44	2600	8.0	14.0	3600	8.9	B3200	740	630	210	56
JUL 14...	0930	E.10	4500	8.1	22.5	10	8.9	8420	1100	900	290	90
AUG 10...	0930	E.50	4000	8.2	19.0	9	7.5	80	1200	1000	330	84
SEP 07...	0945	.00	--	--	--	--	--	--	--	--	--	--

B Results based on colony count outside the acceptable range (non-ideal colony count).
E Estimate.

DATE	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT 07...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 12...	--	--	--	--	--	--	--	--	--	--	--	--
DEC 10...	310	4.1	7.0	190	0	156	1300	180	1.2	8.6	2310	3.14
JAN 14...	--	--	--	--	--	--	--	--	--	--	--	--
FEB 11...	250	4.2	5.8	130	0	107	1000	60	1.0	6.2	1630	2.22
MAR 12...	360	5.3	7.0	160	0	131	1500	35	1.2	6.3	2290	3.11
APR 14...	570	8.0	7.9	210	0	172	1900	100	1.3	8.4	2980	4.05
MAY 11...	450	6.1	8.1	190	0	156	1600	120	1.4	8.5	2660	3.62
JUN 16...	380	6.0	7.7	130	0	107	1400	44	1.2	7.8	2150	2.92
JUL 14...	660	8.7	12	240	0	197	2000	200	1.5	7.1	3380	4.60
AUG 10...	460	5.9	10	200	0	164	1900	80	1.4	9.0	2930	3.98
SEP 07...	--	--	--	--	--	--	--	--	--	--	--	--

06313000 SOUTH FORK POWDER RIVER NEAR KAYCEE, WY

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DISSOLVED SOLIDS (TONS PER DAY)	SUSPENDED SOLIDS (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL BORON (B) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT 07...	--	--	--	--	--	--	--	--	--	--	--
NOV 12...	--	--	--	--	--	--	--	--	--	--	--
DEC 10...	6.24	450	.81	1.2	.04	1.1	1.1	2.3	.25	330	11
JAN 14...	--	--	--	--	--	--	--	--	--	--	--
FEB 11...	13.2	268	2.3	2.9	.05	1.7	1.7	4.6	.13	220	13
MAR 12...	30.9	140	1.2	1.9	.04	1.4	1.4	3.3	.13	350	--
APR 14...	145	774	1.3	2.0	.03	2.0	2.0	4.0	.39	330	9.2
MAY 11...	21.5	34	.84	1.2	.03	.75	.78	2.0	.08	370	--
JUN 16...	255	7040	1.1	1.0	.01	9.1	9.1	10	.5	140	--
JUL 14...	.91	21	.68	.02	.02	.77	.79	.81	.02	540	6.3
AUG 10...	3.96	5	.75	.27	.01	.57	.58	.85	.03	490	--
SEP 07...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	SUSPENDED ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUSPENDED ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	SUSPENDED BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	SUSPENDED CADMIUM (CD) (UG/L)
DEC 10...	0900	7900	7900	20	3	3	0	10	10	0	<10	<8
FEB 11...	0900	4500	4500	10	4	3	1	0	0	10	10	8
APR 14...	0930	11000	11000	0	8	8	0	0	0	0	10	8
JUL 14...	0930	500	490	10	1	0	1	0	0	0	10	9

DATE	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	SUSPENDED CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUSPENDED COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUSPENDED LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
DEC 10...	2	10	10	0	20	2	18	9200	30	100	98	2
FEB 11...	2	10	10	0	20	14	6	4900	20	100	96	4
APR 14...	2	20	20	0	40	38	2	17000	10	<100	<99	1
JUL 14...	1	10	0	10	20	14	6	620	10	<100	<100	0

DATE	TOTAL LITHIUM (LI) (UG/L)	SUSPENDED LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUSPENDED MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	SUSPENDED MOLYBDENUM (MO) (UG/L)
DEC 10...	140	20	120	190	170	20	.0	.0	.0	5	0
FEB 11...	120	0	120	110	80	30	.0	.0	.0	4	1
APR 14...	210	40	170	250	240	10	.0	.0	.0	6	1
JUL 14...	240	0	250	100	10	90	.0	.0	.0	5	0

DATE	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	SUSPENDED NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	SUSPENDED SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUSPENDED ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
DEC 10...	5	50	47	3	14	0	14	.9	60	30	30
FEB 11...	3	<50	<41	9	26	0	26	.6	50	30	20
APR 14...	5	50	46	4	28	4	24	.5	120	110	10
JUL 14...	6	100	97	3	1	0	1	.0	30	0	30

06313180 DUGOUT CREEK TRIBUTARY NEAR MIDWEST, WY

LOCATION.--Lat 43°26'11", long 106°25'11", in SE¼NW¼ sec.14, T.40 N., R.80 W., Natrona County, Hydrologic Unit 10090204, on left bank 1.1 mi (1.8 km) north of Smoky Gap Road, 4.0 mi (6.4 km) upstream from mouth, and 6.5 mi (10.5 km) west of Midwest.

DRAINAGE AREA.--0.8 mi² (2.1 km²).

PERIOD OF RECORD.--Annual maximum, water years 1965-74. October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,930 ft (1,503 m), from topographic map. May 4, 1965, to Sept. 30, 1974, crest-stage gage at present site and datum.

REMARKS.--Records poor. No gage-height record Feb. 15 to Apr. 19. No diversions above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,590 ft³/s (45.0 m³/s) July 15, 1967, gage height, 9.10 ft (2.774 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.- Peak discharges above base of 60 ft³/s (1.70 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 16	1800	82	2.32	2.20	0.670	May 25	1730	238	6.74	3.61	1.100
May 20	1700	*415	11.8	4.79	1.460	May 29	1800	184	5.21	3.18	.969
May 23	1430	70	1.98	2.00	.610	May 30	1430	260	7.36	3.77	1.149

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	0	0	0	0	0	.08	0
2					0	0	0	0	0	0	0	0
3					0	0	0	0	0	0	0	0
4					0	0	0	0	0	0	0	0
5					0	0	0	0	0	0	0	0
6					0	0	0	0	0	0	0	0
7					.12	.13	0	0	0	0	0	2.3
8					.20	.12	0	0	0	0	0	0
9					6.0	.17	0	0	0	0	0	0
10					3.0	.30	0	0	0	0	0	0
11					.50	.11	0	0	0	0	0	0
12					.50	0	0	0	0	0	0	0
13					1.0	.10	0	0	0	0	0	0
14					1.0	0	0	0	12	0	0	0
15					.60	0	0	0	.15	0	0	0
16					.25	.60	7.0	0	0	0	0	0
17					.15	.90	3.2	0	0	0	0	0
18					.14	1.0	.80	0	0	0	0	0
19					.13	.40	0	0	0	0	0	.05
20					.12	.12	0	15	0	0	0	0
21					.20	0	0	0	0	0	0	0
22					.94	0	0	1.7	0	0	0	0
23					.90	0	0	4.9	1.2	0	0	0
24					.84	0	0	0	0	0	0	0
25					.88	0	0	7.2	0	0	0	0
26					.72	0	0	.20	0	0	0	0
27					.40	0	0	0	0	0	0	0
28					.12	0	0	0	0	0	0	0
29					0	0	0	5.7	0	0	0	0
30					---	0	0	24	0	0	0	0
31		---			---	0	---	2.4	---	.47	0	---
TOTAL	0	0	0	0	18.71	3.95	11.00	61.10	13.35	.47	.08	2.35
MEAN	0	0	0	0	.65	.13	.37	1.97	.45	.015	.003	.078
MAX	0	0	0	0	6.0	1.0	7.0	24	12	.47	.08	2.3
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	37	7.8	22	121	26	.9	.2	4.7

CAL YR 1975 TOTAL 58.90 MEAN .16 MAX 25 MIN 0 AC-FT 117
WTR YR 1976 TOTAL 111.01 MEAN .30 MAX 24 MIN 0 AC-FT 220

06313400 SALT CREEK NEAR SUSSEX, WY

LOCATION.--Lat 43°37'19", long 106°22'04", in NE¼NE¼SE¼ sec.8, T.42 N., R.79 W., Johnson County, Hydrologic Unit 10090204, on left bank 200 ft (61 m) upstream from bridge on West Sussex Dugout oil field road, 6.3 mi (10.1 km) southwest of Sussex, and 12.6 mi (20.3 km) upstream from mouth.

DRAINAGE AREA.--769 mi^2 (1,992 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 4,480 ft (1,366 m), from topographic map.

REMARKS.--Records poor. Some regulation by Lower Salt Creek Reservoir, capacity, 2,710 acre-ft (3.34 hm^3).

EXTREMES FOR PERIOD APRIL TO SEPTEMBER.--Maximum discharge, 3,480 ft^3/s (98.6 m^3/s) May 31, gage height, 6.43 ft (1.960 m); minimum daily, 12 ft^3/s (0.34 m^3/s) Aug. 21-25, Sept. 5, 6, 17, 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							23	44	84	25	58	17
2							24	46	63	25	65	15
3							25	44	46	365	42	14
4							25	43	40	52	31	13
5							25	47	35	33	26	12
6							27	44	42	28	23	12
7							29	46	49	26	21	61
8							32	46	33	23	18	29
9							30	44	31	21	16	17
10							26	46	32	19	15	15
11							27	48	31	82	15	14
12							28	51	30	32	16	13
13							30	53	33	21	15	15
14							39	54	207	18	14	15
15							42	69	950	16	14	14
16							51	72	168	15	14	13
17							191	69	69	15	14	12
18							73	70	52	15	13	12
19							46	75	44	15	13	48
20							38	89	36	21	13	34
21							34	110	33	22	12	24
22							35	96	31	16	12	18
23							36	129	32	15	12	33
24							37	217	41	14	12	22
25							42	67	35	13	12	25
26							49	134	31	13	15	29
27							52	73	28	13	13	31
28							52	67	26	15	16	29
29							49	67	26	19	14	26
30							47	531	26	16	13	29
31							---	897	---	28	14	---
TOTAL							1264	3488	2384	1051	601	661
MEAN							42.1	113	79.5	33.9	19.4	22.0
MAX							191	897	950	365	65	61
MIN							23	43	26	13	12	12
AC-FT							2510	6920	4730	2080	1190	1310

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949, 1952, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT										
02...	1350	19	--	--	18.0	--	--	--	350	0
NOV										
13...	1500	46	--	--	3.5	--	--	--	370	0
DEC										
10...	1400	8.0	8000	8.4	5.0	2600	9.6	.4	420	0
18...	1430	33	--	--	.0	--	--	--	400	0
FEB										
11...	1200	10	6000	8.0	.5	--	4.2	4.0	360	0
MAR										
12...	1145	12	4300	8.2	.0	--	8.7	5.4	690	120
APR										
14...	1200	A39	>8000	8.3	12.0	--	9.2	7.6	330	0
MAY										
11...	1230	49	7000	8.3	15.5	--	7.8	4.6	330	0
JUN										
16...	1415	140	3500	7.9	16.0	--	6.0	3.8	650	430
AUG										
10...	1200	A15	>8000	8.3	22.0	--	7.5	4.5	300	0
12...	1600	A16	6700	8.4	25.0	200	--	--	300	0
SEP										
24...	1400	26	--	--	19.5	--	--	--	330	0

A Daily mean discharge.

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT										
02...	67	45	1400	32	20	720	0	591	1100	1200
NOV										
13...	85	39	1300	29	20	720	0	591	930	1200
DEC										
10...	93	45	1400	30	20	810	0	664	1000	1300
18...	97	38	1600	35	21	960	0	787	990	1400
FEB										
11...	78	41	980	22	15	510	0	418	1000	660
MAR										
12...	140	84	1400	23	16	700	0	574	1900	870
APR										
14...	80	32	1400	33	20	720	0	591	1300	1100
MAY										
11...	59	46	1500	36	20	770	0	632	1100	1200
JUN										
16...	150	68	630	11	9.3	270	0	221	1300	270
AUG										
10...	51	42	1400	35	21	700	0	574	1000	1300
12...	51	41	1300	33	21	377	123	514	1000	1300
SEP										
24...	62	42	1300	31	18	720	0	591	930	1100

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)
OCT										
02...	3.6	24	4190	5.70	215	.00	--	--	--	--
NOV										
13...	3.9	23	3960	5.39	492	.00	--	--	--	--
DEC										
10...	.5	23	4320	5.88	93.3	.00	.07	--	.34	--
18...	3.9	26	4640	6.31	413	.00	--	--	--	--
FEB										
11...	1.6	13	3060	4.16	82.6	.02	.19	--	.58	--
MAR										
12...	.4	16	4750	6.46	154	.00	.17	--	.29	--
APR										
14...	3.1	22	4350	5.92	458	.00	.01	--	.09	--
MAY										
11...	3.7	23	4340	5.90	574	.02	.06	--	.03	--
JUN										
16...	1.3	8.7	2570	3.50	971	.05	.17	--	.38	--
AUG										
10...	4.7	25	4210	5.73	171	.34	.01	--	.00	--
12...	2.7	25	4050	5.51	175	--	.03	.01	.00	.00
SEP										
24...	3.9	23	3830	5.21	269	.25	--	--	--	--

YELLOWSTONE RIVER BASIN
06313400 SALT CREEK NEAR SUSSEX, WY--Continued
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
OCT									
02...	--	--	--	--	.09	--	--	--	--
NOV									
13...	--	--	--	--	.08	--	--	--	--
DEC									
10...	2.5	--	2.8	2.9	.18	--	1800	--	--
18...	--	--	--	--	.03	--	--	--	--
FEB									
11...	2.6	--	3.2	3.4	.03	--	1000	--	--
MAR									
12...	1.2	--	1.5	1.7	.06	--	1300	--	--
APR									
14...	1.2	--	1.3	1.3	.10	--	1700	--	--
MAY									
11...	1.4	--	1.4	1.5	.17	--	1800	--	--
JUN									
16...	6.0	--	6.4	6.6	.95	--	410	--	--
AUG									
10...	1.7	--	1.7	1.7	.25	--	1900	--	--
12...	.38	.00	.38	.41	.27	.01	1900	660	.2
SEP									
24...	--	--	--	--	.15	--	--	--	--

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)
FEB											
11...	1200	5000	10	6	3	10	10	10	1	10	0
APR											
14...	1200	3100	--	6	--	0	--	10	--	10	--
AUG											
10...	1200	11000	--	4	--	0	--	10	--	30	--
12...	1600	9200	40	9	4	0	0	10	0	0	0

DATE	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
FEB											
11...	30	1	6900	20	<100	3	210	200	360	260	.0
APR											
14...	20	--	5500	--	<100	--	340	--	130	--	.0
AUG											
10...	40	--	14000	--	100	--	370	--	180	--	.0
12...	<10	2	10000	30	<100	1	380	170	150	10	.0

DATE	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
FEB										
11...	.0	2	1	50	8	1	1	10	90	20
APR										
14...	--	2	--	<50	--	1	--	--	50	--
AUG										
10...	--	3	--	50	--	1	--	--	80	--
12...	.0	1	1	50	3	1	1	--	70	10

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM
DEC										
10...	1400	5.0	8.0	2600	56	--	--	--	--	--
FEB										
11...	1200	.5	10	363	9.8	--	--	--	--	--
MAR										
12...	1145	.0	12	257	8.3	--	--	--	--	--
15...	1600	.5	54	3620	528	--	--	--	--	--
APR										
15...	1545	16.0	40	1400	151	--	--	--	--	--
28...	1130	6.0	59	3380	538	--	--	--	--	--
MAY										
12...	1145	14.5	47	382	48	--	--	--	--	--
23...	1435	12.0	107	11800	3410	58	80	91	96	100
30...	1700	15.0	315	91700	78000	67	90	98	99	100
JUN										
02...	1600	25.0	57	6720	1030	--	--	--	--	--
AUG										
06...	1500	24.5	24	1300	84	--	--	--	--	--
12...	1600	25.0	16	600	26	--	--	--	--	--

06313400 SALT CREEK NEAR SUSSEX, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 12,76
TIME	1600
TOTAL CELLS/ML	660
DIVERSITY: DIVISION	0.9
.CLASS	0.9
..ORDER	0.9
...FAMILY	1.2
....GENUS	1.2

ORGANISM	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...SCENEDESMACEAE		
....SCENEDESMUS	450#	69
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..PENNALES		
...NAVICULACEAE		
....NAVICULA	150#	23
...NITZSCHIACEAE		
....NITZSCHIA	57	9

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

PERIPHYTON

AUG. 12, 1976
1600 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME	_COMMON__NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
O	....CLADOPHORA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...CYMBELLACEAE	
O	....AMPHORA	
O	....EPITHEMIA	
	...FRAGILARIACEAE	
E	....SYNEDRA	
	...NAVICULACEAE	NAVICULOID
O	....GYROSIGMA	
E	....NAVICULA	
	...NITZSCHIACEAE	
O	....CYLINDROTHECA	
O	....NITZSCHIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06313500 POWDER RIVER AT SUSSEX, WY

LOCATION.--Lat 43°41'54", long 106°17'50", in NE¼SE¼NW¼ sec.13, T.43 N., R.79 W., Johnson County, Hydrologic Unit 10090202, at bridge on State Route 192 at former discharge station, 0.2 mi (0.3 km) west of Sussex, and 3.2 mi (5.1 km) downstream from Salt Creek.

DRAINAGE AREA.--3,090 mi^2 (8,000 km^2), approximately.

PERIOD OF RECORD.--Water years 1949-53, 1967-68, August 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
AUG 12...	1100	50	4100	8.2	19.0	200	8.3	620	270	150

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
AUG 12...	59	480	12	13	422	0	346	900	560

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)
AUG 12...	1.3	15	2590	3.52	350	.11	.00	.18	.17

DATE	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
AUG 12...	.44	.00	.62	.15	.73	.30	.01	140	.0

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
AUG 12...	1100	6900	20	50	50	0	0	910	10	0	0

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
AUG 12...	0	10	2	1900	10	<100	1	200	200	150	20

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
AUG 12...	.0	.0	2	2	<50	3	2	2	50	8

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
AUG 12...	1100	19.0	50	604	82

06313500 POWDER RIVER AT SUSSEX, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 12.76
TIME	1100
TOTAL CELLS/ML	140
DIVERSITY: DIVISION	0.8
.CLASS	0.8
..ORDER	0.8
...FAMILY	1.0
....GENUS	1.0

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...SCENEDESMACEAE		
....SCENEDESMUS	110#	77
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..PENNALES		
...GOMPHONEMATACEAE		
....GOMPHONEMA	11	8
...NITZSCHIACEAE		
....NITZSCHIA	21#	16

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

PERIPHYTON

AUG. 12, 1976
1100 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME	_COMMON__NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..ULOTRICHALES	
	...CHAETOPHORACEAE	
O	....STIGEOCLONIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
	..PENNALES	PENNATE
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
E	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPRORA	
O	....CALONEIS	
E	....NAVICULA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....LYNGBYA	

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06313700 DEAD HORSE CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°12'54", long 106°06'41", in NW¼SE¼SW¼ sec.15, T.49 N., R.77 W., Johnson County, Hydrologic Unit 10090202, on left bank 30 ft (9 m) upstream from bridge on dirt road, 0.8 mi (1.3 km) upstream from Interstate Highway 90, 5.3 mi (8.5 km) upstream from mouth, and 31 mi (50 km) east of Buffalo. Prior to July 16, 1976, at site 0.3 mi (0.5 km) upstream.

DRAINAGE AREA.--151 mi^2 (391 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Annual maximum, water years 1958-71. October 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,970 ft (1,210 m), from topographic map. Oct. 1, 1958, to Sept. 30, 1971, crest-stage gage at present site and datum. Nov. 24, 1971, to July 15, 1976, water-stage recorder at site 0.3 mi (0.5 km) upstream at different datum.

REMARKS.--Records poor. No gage-height record Dec. 9 to Jan. 13, Feb. 20 to Apr. 8.

AVERAGE DISCHARGE.--5 years, 2.03 ft^3/s (0.057 m^3/s), 1,470 acre-ft/yr (1.81 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,480 ft^3/s (70.2 m^3/s) June 22, 1976, gage height, 11.32 ft (3.450 m), from floodmarks, from rating curve extended above 975 ft^3/s (27.6 m^3/s) on basis of contracted-opening and flow-over-road measurement of peak flow, present site and datum; maximum gage height, 11.6 ft (3.54 m) May 26, 1962, present site and datum; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s (8.50 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 20	2230	945	26.8	8.25	2.515	June 6	0630	537	15.2	6.66	2.030
May 29	2200	690	19.5	7.32	2.231	June 22	2400	*2480	70.2	a11.32	3.450

a Present site and datum.

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		0	0	0	.40		0	.10	0		0	
2		0	0	0	.50		0	.10	0		0	
3		0	0	0	.30		0	.10	0		0	
4		0	0	0	.10		0	.20	0		11	
5		0	0	0	0		0	.20	0		1.3	
6		.10	0	0	0		0	.10	76		0	
7		.10	0	0	0		.10	.10	1.5		0	
8		.10	0	0	3.3		.10	0	.10		0	
9		.10	0	0	130		0	0	0		0	
10		.10	0	0	47		0	0	0		1.5	
11		0	0	0	7.8		0	0	0		0	
12		0	0	0	2.9		0	0	0		0	
13		0	0	0	1.4		0	0	0		0	
14		0	0	0	.60		0	1.1	26		0	
15		0	0	.10	0		0	1.5	33		0	
16		0	0	.30	0		.20	.40	1.5		0	
17		0	0	.30	0		.20	0	6.8		0	
18		0	0	.20	0		.10	0	1.2		0	
19		0	.10	.10	0		.10	0	0		0	
20		0	.10	.10	0		0	92	0		0	
21		0	.10	.20	0		0	24	0		0	
22		0	.10	.20	0		0	.40	112		0	
23		0	.10	.10	0		0	0	259		0	
24		0	.10	0	0		0	4.1	2.9		0	
25		0	.10	0	0		0	3.7	1.0		0	
26		0	.10	0	0		0	1.8	.30		0	
27		0	.10	0	0		0	.40	0		0	
28		0	0	.20	0		.10	0	0		0	
29		0	0	.40	0		.10	40	0		0	
30		0	0	.30	---		.10	39	0		0	
31		---	0	.40	---		---	.80	---		0	---
TOTAL	0	.50	.90	2.90	194.30	0	1.10	210.10	521.30	0	13.8	0
MEAN	0	.017	.029	.094	6.70	0	.037	6.78	17.4	0	.45	0
MAX	0	.10	.10	.40	130	0	.20	92	259	0	11	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	1.0	1.8	5.8	385	0	2.2	417	1030	0	27	0

CAL YR 1975 TOTAL 568.36 MEAN 1.56 MAX 398 MIN 0 AC-FT 1130
WTR YR 1976 TOTAL 944.90 MEAN 2.58 MAX 259 MIN 0 AC-FT 1870

06313700 DEAD HORSE CREEK NEAR BUFFALO, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
AUG										
10...	0900	.76	2400	8.0	10.0	2000	7.3	1400	1300	400

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
AUG									
10...	95	90	1.1	8.6	81	0	66	1400	4.0

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)
AUG									
10...	.3	3.8	2050	2.79	4.21	.80	.71	.36	.25

DATE	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
AUG									
10...	5.6	1.1	6.0	1.3	6.8	1.3	.03	0	.8

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
AUG											
10...	0900	96000	20	40	1	10	0	50	10	0	130

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
AUG											
10...	0	200	6	150000	70	300	0	120	10	2000	0

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
AUG										
10...	.2	.3	4	2	200	3	8	8	600	10

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
AUG					
10...	0900	10.0	.76	6320	13

06313700 DEAD HORSE CREEK NEAR BUFFALO, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

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DATE                              AUG 10,76
TIME                                 0900

TOTAL CELLS/ML                          0

DIVERSITY: DIVISION                   0.0
          .CLASS                      0.0
          ..ORDER                     0.0
          ...FAMILY                   0.0
          ....GENUS                   0.0

                                  CELLS  PER-
 ORGANISM                          /ML   CENT

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
      * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%
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06313950 NORTH FORK CRAZY WOMAN CREEK BELOW POLE CREEK, NEAR BUFFALO, WY

LOCATION.--Lat 44°11'11", long 106°51'12", in NW¼NE¼SW¼ sec.28, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, Bighorn National Forest, on right bank 8 ft (2 m) upstream from bridge, 0.7 mi (1.1 km) upstream from forest boundary, 3.4 mi (5.5 km) downstream from Pole Creek, and 13 mi (21 km) southwest of Buffalo.

DRAINAGE AREA.--43.4 mi² (112.4 km²).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,280 ft (1,914 m), from topographic map.

REMARKS.--Records fair. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 500 ft³/s (14.2 m³/s) June 18, 1975, gage height, 4.50 ft (1.372 m); minimum daily, 2.9 ft³/s (0.082 m³/s) Mar. 5, 6, 1976.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 160 ft³/s (4.53 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	(m³/s)	Gage height (ft)	(m)
May 21	2300	*460	13.0	4.42	1.347

Minimum daily discharge, 2.9 ft³/s (0.082 m³/s) Mar. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	9.1	5.2	5.0	3.6	3.1	5.5	14	169	58	20	8.7
2	9.4	9.5	6.1	4.9	3.6	3.1	6.1	18	169	57	69	8.0
3	9.1	10	6.8	4.9	3.6	3.1	5.5	24	158	56	30	7.7
4	9.0	11	6.8	4.7	3.6	3.1	5.8	35	160	46	26	7.7
5	8.9	9.9	7.1	4.7	3.1	2.9	7.7	43	154	42	26	7.1
6	8.5	10	6.8	4.5	3.1	2.9	9.5	36	148	42	26	7.1
7	8.3	9.1	7.1	4.5	3.1	3.1	9.1	30	146	42	18	12
8	8.7	7.7	7.1	4.5	3.1	3.1	9.5	54	136	38	16	13
9	8.7	6.4	7.1	4.5	3.4	3.1	13	73	121	35	15	11
10	9.9	6.8	7.1	4.5	3.4	3.1	15	90	107	32	16	9.1
11	9.1	7.8	7.1	4.5	3.4	3.1	17	114	102	30	16	8.3
12	8.7	6.5	7.1	4.3	3.4	3.6	26	93	99	30	16	8.3
13	8.7	7.7	7.1	4.3	3.4	3.4	35	96	93	33	15	9.1
14	9.1	8.0	6.6	4.0	3.4	3.4	32	144	94	30	14	8.7
15	8.7	8.3	6.8	4.0	3.4	3.6	28	140	110	29	13	8.7
16	9.9	8.3	6.4	4.3	3.4	3.6	25	86	112	27	12	8.7
17	8.7	7.7	6.1	4.3	3.4	3.8	19	98	94	25	12	8.0
18	9.5	7.4	6.1	4.3	3.4	4.0	13	148	87	24	12	8.0
19	9.1	6.7	5.5	4.2	3.4	4.3	11	176	83	24	12	15
20	8.7	4.4	5.5	4.0	3.4	4.0	9.5	202	72	27	11	13
21	8.7	5.0	5.5	4.0	3.4	4.0	11	214	79	33	10	9.9
22	8.7	5.1	5.5	4.0	3.1	4.0	12	266	83	23	10	9.1
23	7.4	5.2	5.5	3.8	3.1	4.0	15	220	107	20	9.9	17
24	7.0	5.2	5.5	4.0	3.1	4.0	12	207	74	20	9.5	16
25	6.7	5.5	5.5	4.0	3.4	4.3	16	207	63	18	9.9	15
26	9.5	5.0	5.5	3.6	3.4	4.3	18	180	59	19	9.5	14
27	9.5	5.5	5.2	3.6	3.4	4.3	15	173	56	18	12	13
28	9.9	5.5	5.2	3.6	3.1	4.3	15	190	52	18	11	12
29	9.5	5.5	5.2	3.6	3.1	4.3	11	209	53	17	9.9	11
30	9.5	5.2	5.2	3.6	---	4.3	11	204	56	16	8.7	9.5
31	9.5	---	5.2	3.6	---	4.3	---	173	---	16	9.1	---
TOTAL	276.3	215.0	190.5	130.3	96.7	113.5	438.2	3957	3096	945	504.5	313.7
MEAN	8.91	7.17	6.15	4.20	3.33	3.66	14.6	128	103	30.5	16.3	10.5
MAX	9.9	11	7.1	5.0	3.6	4.3	35	266	169	58	69	17
MIN	6.7	4.4	5.2	3.6	3.1	2.9	5.5	14	52	16	8.7	7.1
AC-FT	548	426	378	258	192	225	869	7850	6140	1870	1000	622

CAL YR 1975 TOTAL 11553.8 MEAN 31.7 MAX 322 MIN 3.4 AC-FT 22920
WTR YR 1976 TOTAL 10276.7 MEAN 28.1 MAX 266 MIN 2.9 AC-FT 20380

06314000 NORTH FORK CRAZY WOMAN CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°11'16", long 106°49'48", in SW¼SW¼NE¼ sec.27, T.49 N., R.83 W., Johnson County, Hydrologic Unit 10090205, on left bank, 70 ft (21 m) upstream from bridge on county road, 2.1 mi (3.4 km) upstream from Spring Draw, and 13 mi (21 km) southwest of Buffalo.

DRAINAGE AREA.--44.9 mi² (116.3 km²).

PERIOD OF RECORD.--April 1942 to September 1949, October 1973 to current year. Prior to October 1944, monthly discharge only published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 5,900 ft (1,798 m), from topographic map. Apr. 1, 1942, to Sept. 23, 1943, nonrecording gage nearby at different datum. Sept. 24, 1943, to Sept. 30, 1949, water-stage recorder at datum 1.33 ft (0.405 m) lower.

REMARKS.--Records fair. No diversion above station.

AVERAGE DISCHARGE.--10 years (water years 1943-49, 1974-76), 25.7 ft³/s (0.728 m³/s) 18,620 acre-ft/yr (23.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 611 ft³/s (17.3 m³/s) June 6, 1949, gage height, 4.23 ft (1.289 m) from rating curve extended above 150 ft³/s (4.25 m³/s) on basis of slope-area measurement of peak flow at site 3.2 mi (5.1 km) downstream; minimum daily, 3.1 ft³/s (0.088 m³/s) Mar. 8, 29, 30, 1944.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 160 ft³/s (4.53 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 21	2300	*446	12.6	3.47	1.058

Minimum daily discharge, 3.9 ft³/s (0.11 m³/s) Feb. 4, 5, Mar. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	8.1	5.8	5.4	4.1	4.3	4.7	13	153	57	20	9.4
2	12	8.4	6.0	5.4	4.1	4.1	4.7	19	153	57	69	8.7
3	10	8.4	6.3	5.4	4.1	4.1	4.7	25	144	57	34	8.1
4	10	9.4	6.6	5.4	3.9	4.1	4.9	38	144	48	29	8.1
5	9.8	9.0	6.9	5.1	3.9	4.1	5.8	52	144	44	26	7.8
6	8.7	9.4	6.9	4.9	4.1	4.1	7.8	41	140	44	29	7.8
7	8.4	9.4	6.9	4.9	4.1	4.1	8.1	34	140	44	20	12
8	8.7	8.4	6.9	4.9	4.1	4.1	8.1	61	133	41	17	13
9	8.7	5.8	6.9	4.9	4.1	4.1	10	79	118	36	16	11
10	10	5.4	6.9	4.9	4.1	4.1	13	92	109	35	17	10
11	9.4	7.2	6.9	4.7	4.1	4.1	17	116	104	33	17	9.0
12	8.7	5.4	6.9	4.7	4.1	4.1	31	96	100	33	17	9.4
13	8.7	6.6	6.9	4.7	4.1	4.1	41	96	96	35	16	10
14	8.7	7.5	6.6	4.7	4.1	4.1	35	127	96	31	16	9.4
15	8.7	8.4	6.9	4.7	4.1	3.9	32	137	107	31	14	9.0
16	9.8	8.7	6.9	4.7	4.1	4.1	27	84	106	29	13	8.7
17	8.7	8.4	6.6	4.7	4.1	4.1	19	94	94	25	12	8.4
18	9.4	7.8	6.6	4.5	4.1	4.3	12	124	85	24	12	8.1
19	8.4	6.3	6.3	4.5	4.3	4.3	10	151	85	23	12	15
20	7.5	4.3	6.3	4.5	4.3	4.3	9.4	175	73	27	12	13
21	7.5	5.1	6.3	4.5	4.3	4.3	10	217	79	34	11	10
22	7.5	5.1	6.0	4.5	4.1	4.1	11	244	81	24	11	9.0
23	6.9	5.4	6.0	4.1	4.1	4.1	14	202	94	21	11	17
24	6.3	5.4	6.0	4.1	4.1	4.1	11	197	76	19	11	16
25	6.0	5.7	6.0	4.1	4.1	4.1	17	205	67	18	11	16
26	8.4	5.7	6.0	4.1	4.1	4.3	20	178	62	19	11	14
27	8.7	5.7	6.0	4.1	4.3	4.3	15	168	58	18	13	13
28	8.4	5.7	5.8	4.1	4.3	4.5	13	185	53	17	12	11
29	8.7	5.7	5.7	4.1	4.3	4.5	11	208	53	16	10	10
30	8.7	5.7	5.7	4.1	---	4.5	10	188	54	16	9.8	9.4
31	8.7	---	5.7	4.1	---	4.5	---	156	---	15	10	---
TOTAL	273.1	207.5	198.2	143.5	119.7	129.9	437.2	3804	3001	971	538.8	321.3
MEAN	8.81	6.92	6.39	4.63	4.13	4.19	14.6	123	100	31.3	17.4	10.7
MAX	13	9.4	6.9	5.4	4.3	4.5	41	244	153	57	69	17
MIN	6.0	4.3	5.7	4.1	3.9	3.9	4.7	13	53	15	9.8	7.8
AC-FT	542	412	393	285	237	258	867	7550	5950	1930	1070	637

CAL YR 1975 TOTAL 11670.8 MEAN 32.0 MAX 306 MIN 4.3 AC-FT 23150
WTR YR 1976 TOTAL 10145.2 MEAN 27.7 MAX 244 MIN 3.9 AC-FT 20120

06315480 POISON CREEK BELOW TETLEY SPRING, NEAR MAYOWORTH, WY

LOCATION.--Lat 44°05'29", long 106°51'47", in SE¼NW¼NW¼ sec.32, T.48 N., R.83 W., Johnson County, Hydrologic Unit 10090205, on left bank 0.6 mi (1.0 km) downstream from Tetley Spring and 16 mi (26 km) north of Mayoworth.

DRAINAGE AREA.--19.0 mi² (49.2 km²).

PERIOD OF RECORD.--October 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,930 ft (2,112 m), from topographic map.

REMARKS.--Records fair except those for November to April, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 155 ft³/s (4.39 m³/s) June 18, 1975, gage height, 2.33 ft (0.710 m), from rating curve extended above 40 ft³/s (1.13 m³/s); maximum gage height, 2.67 ft (0.814 m) Apr. 26, 1975 (backwater from ice); minimum daily discharge, 1.4 ft³/s (0.040 m³/s) Nov. 29, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 125 ft³/s (3.54 m³/s) May 22, gage height, 2.23 ft (0.680 m); maximum gage height, 2.44 ft (0.744 m) Apr. 28 (backwater from ice); minimum daily discharge, 1.6 ft³/s (0.045 m³/s) Jan. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.1	3.5	2.6	2.4	2.3	2.5	3.0	11	32	6.7	3.9	2.4
2	2.7	3.5	3.0	2.4	2.3	2.5	4.0	13	30	6.2	12	2.2
3	2.6	3.9	3.0	2.2	2.2	2.4	3.5	17	27	6.5	5.7	2.1
4	2.4	4.1	3.0	2.2	2.2	2.3	4.0	26	27	5.5	4.6	2.2
5	2.4	3.7	2.9	2.2	2.0	2.3	4.5	24	27	5.5	4.6	2.2
6	2.4	3.5	2.8	2.2	2.1	2.4	5.0	20	26	5.7	3.7	2.3
7	2.8	3.2	2.7	2.2	2.4	2.5	5.3	23	23	5.4	3.1	3.7
8	1.9	3.2	2.7	2.1	2.7	2.5	5.3	33	24	4.9	2.8	3.5
9	2.4	3.0	2.7	2.2	2.8	2.5	6.8	32	18	4.3	2.8	3.1
10	2.5	3.3	2.7	2.3	2.7	2.4	7.0	39	16	4.2	3.2	2.8
11	2.4	3.2	2.7	2.3	2.5	2.4	7.6	43	15	4.3	3.1	2.6
12	2.4	3.2	2.6	2.1	2.5	2.2	10	34	16	4.3	2.9	2.8
13	2.7	3.0	2.5	2.1	2.5	2.3	12	37	16	4.3	2.8	3.0
14	3.1	3.2	2.4	2.0	2.5	2.3	12	44	19	4.0	2.7	2.9
15	3.1	3.4	2.5	2.0	2.4	2.3	12	39	23	3.9	2.6	2.8
16	3.2	3.4	2.4	2.1	2.4	2.4	9.1	24	21	3.8	2.6	2.7
17	3.1	3.4	2.5	2.1	2.4	2.4	7.0	25	19	3.5	2.6	2.7
18	3.0	3.0	2.6	1.9	2.5	2.4	6.3	31	16	3.5	2.5	2.7
19	2.8	2.6	2.6	1.8	2.5	2.4	5.8	36	18	3.4	2.5	4.9
20	2.8	1.7	2.5	1.8	2.5	2.3	6.5	41	13	4.7	2.3	3.7
21	2.8	2.2	2.5	1.8	2.5	2.4	5.8	39	11	4.6	2.3	3.0
22	2.9	2.4	2.5	1.8	2.4	2.4	6.3	54	10	3.6	2.3	2.8
23	3.4	2.4	2.5	1.8	2.4	2.4	6.8	41	16	3.3	2.4	5.0
24	2.9	2.4	2.5	1.7	2.5	2.4	6.5	38	12	2.9	2.3	4.4
25	3.4	2.6	2.5	1.6	2.4	2.3	7.7	35	9.8	2.9	2.5	5.1
26	3.5	3.0	2.5	1.7	2.5	2.2	8.1	32	9.2	3.1	2.4	4.4
27	3.5	3.0	2.5	1.8	2.5	2.2	10	30	8.1	3.3	2.7	4.2
28	3.2	2.8	2.5	1.9	2.5	2.2	15	32	7.4	2.9	2.5	3.8
29	3.2	2.8	2.4	2.0	2.5	2.1	12	38	7.2	2.9	2.3	3.4
30	3.4	2.6	2.5	2.3	---	2.2	9.0	45	7.0	2.9	2.2	3.2
31	3.5	---	2.3	2.4	---	2.3	---	35	---	2.9	2.4	---
TOTAL	89.5	91.2	80.6	63.4	70.6	72.8	223.9	1011	523.7	129.9	99.3	96.6
MEAN	2.89	3.04	2.60	2.05	2.43	2.35	7.46	32.6	17.5	4.19	3.20	3.22
MAX	3.5	4.1	3.0	2.4	2.8	2.5	15	54	32	6.7	12	5.1
MIN	1.9	1.7	2.3	1.6	2.0	2.1	3.0	11	7.0	2.9	2.2	2.1
AC-FT	178	181	160	126	140	144	444	2010	1040	258	197	192

CAL YR 1975 TOTAL 2709.6 MEAN 7.42 MAX 93 MIN 1.7 AC-FT 5370
WTR YR 1976 TOTAL 2552.5 MEAN 6.97 MAX 54 MIN 1.6 AC-FT 5060

06315490 POISON CREEK NEAR MAYOWORTH, WY

LOCATION.--Lat 44°04'12", long 106°49'17", in SW¼NE¼SW¼ sec.3, T.47 N., R.83 W., Johnson County, Hydrologic Unit 10090205, on left bank 1.1 mi (1.8 km) upstream from mouth and 16 mi (26 km) north of Mayoworth.

DRAINAGE AREA.--24.7 mi^2 (64.0 km^2).

PERIOD OF RECORD.--October 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,440 ft (1,658 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 173 ft^3/s (4.90 m^3/s) June 18, 1975, gage height, 3.60 ft (1.097 m); maximum gage height, 3.69 ft (1.125 m) Apr. 26, 1975 (backwater from ice); minimum daily discharge, 1.7 ft^3/s (0.048 m^3/s) Jan. 26, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 116 ft^3/s (3.29 m^3/s) May 14, gage height, 3.28 ft (1.000 m); maximum gage height, 3.39 ft (1.033 m) Jan. 26 (backwater from ice); minimum daily discharge, 1.7 ft^3/s (0.048 m^3/s) Jan. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	3.6	2.6	2.8	1.9	2.6	3.6	7.9	29	7.6	4.4	2.8
2	3.0	3.8	2.6	3.1	2.0	2.5	3.8	12	28	6.6	15	2.8
3	2.7	3.6	2.7	3.1	2.1	2.5	3.6	15	28	6.9	8.3	2.6
4	2.6	4.1	3.0	3.3	1.9	2.5	3.8	22	26	6.4	5.6	2.6
5	2.6	4.1	3.1	3.3	1.8	2.5	4.6	25	26	5.9	5.9	2.6
6	2.5	3.9	3.1	3.0	1.9	2.6	5.9	20	26	6.2	4.9	2.7
7	2.8	3.6	3.0	3.0	2.1	2.7	6.4	20	21	5.9	4.4	3.8
8	2.5	3.3	2.8	3.1	2.2	2.8	6.2	29	23	5.6	3.9	3.9
9	2.5	3.0	3.0	3.1	2.2	2.8	7.9	34	18	5.2	3.9	3.8
10	2.6	3.6	3.0	3.1	2.1	3.0	8.6	35	15	4.6	4.1	3.3
11	2.7	3.3	3.3	2.8	2.0	3.0	9.3	43	15	4.9	4.2	3.1
12	2.5	2.7	3.3	3.0	2.0	2.9	14	35	15	5.2	4.1	3.3
13	2.7	2.8	3.1	3.0	2.0	3.0	17	34	16	4.9	4.1	3.4
14	3.0	3.0	3.0	2.7	2.0	2.8	18	51	18	4.9	3.9	3.4
15	3.1	3.3	3.1	2.8	1.9	2.7	17	39	23	4.6	3.8	3.3
16	3.1	3.4	3.3	3.0	1.9	2.9	14	28	23	4.4	3.6	3.3
17	3.1	3.4	3.2	2.8	2.0	3.1	10	28	19	4.2	3.6	3.1
18	3.1	3.4	3.2	3.0	2.0	3.1	8.9	36	17	4.2	3.6	3.1
19	3.0	3.3	3.1	2.5	1.9	3.4	8.3	41	19	4.2	3.6	5.2
20	3.1	2.9	2.8	2.5	2.0	3.3	7.2	46	14	6.2	3.4	4.9
21	3.1	2.5	2.8	2.5	2.1	3.2	8.3	43	12	5.4	3.4	3.9
22	3.1	2.6	2.8	2.5	2.3	3.3	8.3	56	11	4.4	3.4	3.8
23	3.1	2.6	2.8	2.4	2.3	3.4	8.9	40	15	4.2	3.3	5.6
24	3.3	2.5	2.8	2.3	2.4	3.3	8.3	39	12	4.1	3.3	5.6
25	3.1	2.5	2.7	1.9	2.5	3.4	11	35	11	3.9	3.4	6.6
26	3.4	2.2	2.7	1.7	2.6	3.3	11	32	10	4.1	3.4	5.6
27	3.6	2.4	2.7	1.9	2.7	3.3	5.4	30	9.3	4.4	3.3	5.2
28	3.1	2.6	2.7	1.9	2.7	3.3	8.6	30	8.3	3.9	3.1	4.6
29	3.4	2.6	2.7	1.9	2.6	3.2	8.3	34	7.9	3.9	2.8	4.2
30	3.8	2.6	2.7	1.9	---	3.2	7.2	42	7.9	3.9	2.7	4.1
31	3.6	---	2.8	2.0	---	3.4	---	36	---	3.9	2.8	---
TOTAL	93.4	93.2	90.5	81.9	62.1	93.0	263.4	1017.9	523.4	154.7	133.2	116.2
MEAN	3.01	3.11	2.92	2.64	2.14	3.00	8.78	32.8	17.4	4.99	4.30	3.87
MAX	3.8	4.1	3.3	3.3	2.7	3.4	18	56	29	7.6	15	6.6
MIN	2.5	2.2	2.6	1.7	1.8	2.5	3.6	7.9	7.9	3.9	2.7	2.6
AC-FT	185	185	180	162	123	184	522	2020	1040	307	264	230

CAL YR 1975 TOTAL 2942.7 MEAN 8.06 MAX 110 MIN 2.1 AC-FT 5840
WTR YR 1976 TOTAL 2722.9 MEAN 7.44 MAX 56 MIN 1.7 AC-FT 5400

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY

LOCATION.--Lat 44°29'15", long 106°10'25", in NW¼ sec.18, T.52 N., R.77 W., Johnson County, Hydrologic Unit 10090205, at former gaging station, 0.2 mi (0.3 km) usptream from unnamed tributary, 4.5 mi (7.2 km) upstream from mouth, and 11.5 mi (18.5 km) south of Arvada.

DRAINAGE AREA.--945 mi² (2,448 km²), approximately.

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT										
01...	1000	15	--	--	8.0	--	--	710	510	150
NOV										
05...	0910	25	--	--	3.0	--	--	630	430	140
DEC										
04...	1600	27	--	--	.0	--	--	770	530	170
JAN										
14...	1300	13	--	--	.0	--	--	710	470	160
FEB										
12...	1530	26	--	--	.0	--	--	460	320	110
MAR										
04...	1610	70	--	--	.0	--	--	640	450	140
APR										
09...	1410	72	--	--	13.5	--	--	780	570	170
MAY										
05...	1630	59	--	--	15.0	--	--	600	420	130
JUN										
09...	1510	180	--	--	25.5	--	--	240	140	52
30...	1100	51	--	--	--	--	--	440	320	90
AUG										
04...	0930	134	--	--	19.5	--	--	320	230	80
10...	1200	26	1060	8.2	21.0	100	6.6	440	290	100
SEP										
16...	2000	12	--	--	21.5	--	--	780	600	160

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT										
01...	82	120	2.0	4.0	240	0	197	770	7.2	.6
NOV										
05...	70	110	1.9	2.8	240	3	202	620	9.5	.6
DEC										
04...	85	120	1.9	4.0	290	0	238	780	9.9	.7
JAN										
14...	76	120	2.0	3.5	290	0	238	700	9.4	.6
FEB										
12...	47	75	1.5	6.3	170	0	139	480	7.0	.5
MAR										
04...	69	110	1.9	2.8	230	0	189	690	8.7	.6
APR										
09...	90	150	2.3	4.0	260	0	213	890	12	.7
MAY										
05...	68	140	2.5	4.2	210	6	182	710	12	.7
JUN										
09...	25	36	1.0	2.3	120	0	98	210	1.9	.3
30...	53	79	1.6	2.8	150	0	123	460	9.3	.6
AUG										
04...	30	33	.8	5.4	110	0	90	310	3.7	.4
10...	45	68	1.4	6.0	178	0	146	400	6.0	.3
SEP										
16...	94	140	2.2	4.7	220	0	180	880	6.9	.7

YELLOWSTONE RIVER BASIN

06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)
OCT 01...	3.3	1260	1.71	51.0	.05	--	--	--	--
NOV 05...	8.6	1090	1.48	73.6	.02	--	--	--	--
DEC 04...	11	1330	1.81	97.0	.05	--	--	--	--
JAN 14...	12	1230	1.67	43.2	.14	--	--	--	--
FEB 12...	6.9	820	1.12	57.6	.20	--	--	--	--
MAR 04...	7.9	1150	1.56	217	.05	--	--	--	--
APR 09...	3.7	1440	1.96	280	.02	--	--	--	--
MAY 05...	6.5	1180	1.60	188	.05	--	--	--	--
JUN 09...	12	400	.54	194	.18	--	--	--	--
30...	11	785	1.07	108	.05	--	--	--	--
AUG 04...	6.8	521	.71	189	.43	--	--	--	--
10...	9.8	723	.98	50.8	--	.09	.01	.00	.00
SEP 16...	.4	1390	1.89	45.0	.05	--	--	--	--

DATE	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
OCT 01...	--	--	--	--	--	.00	--	--	--
NOV 05...	--	--	--	--	--	.01	--	--	--
DEC 04...	--	--	--	--	--	.02	--	--	--
JAN 14...	--	--	--	--	--	.02	--	--	--
FEB 12...	--	--	--	--	--	.08	--	--	--
MAR 04...	--	--	--	--	--	.02	--	--	--
APR 09...	--	--	--	--	--	.02	--	--	--
MAY 05...	--	--	--	--	--	.03	--	--	--
JUN 09...	--	--	--	--	--	.24	--	--	--
30...	--	--	--	--	--	.06	--	--	--
AUG 04...	--	--	--	--	--	.67	--	--	--
10...	.85	.98	.85	.98	.94	.15	.03	18000	.4
SEP 16...	--	--	--	--	--	.01	--	--	--

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)
AUG 10...	1200	4200	0	4	2	10	0	120	<10	0	0

DATE	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
AUG 10...	0	<10	2	5200	20	<100	0	30	30	190	20

DATE	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
AUG 10...	.0	.0	2	2	<50	3	1	1	30	0

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
AUG 10...	1200	21.0	26	316	22

YELLOWSTONE RIVER BASIN
06316400 CRAZY WOMAN CREEK AT UPPER STATION, NEAR ARVADA, WY
QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON

DATE	AUG 10.76
TIME	1200
TOTAL CELLS/ML	18000
DIVERSITY: DIVISION	0.9
.CLASS	0.9
..ORDER	1.6
...FAMILY	2.0
....GENUS	2.5

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	910	6
....CHODATELLA	230	2
...SCENEDESMACEAE		
....ACTINASTRUM	910	6
....SCENEDESMUS	4500#	26
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	5200#	30
....MELOSIRA	680	4
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	230	2
...NAVICULACEAE		
....NAVICULA	230	2
...NITZSCHIACEAE		
....HANTZSCHIA	230	2
....NITZSCHIA	4800#	27

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

PERIPHYTON

AUG. 10, 1976
1200 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME_______________	_COMMON__NAME_______
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
E	....CLADOPHORA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
E	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPLEURA	
O	....ANOMOEONEIS	
O	....GYROSIGMA	
E	....NAVICULA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	
	...RIVULARIACEAE	
O	....AMPHITHRIX	

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06317000 POWDER RIVER AT ARVADA, WY

LOCATION.--Lat 44°38'45", long 106°08'00", in NE¼NW¼ sec.21, T.54 N., R.77 W., Sheridan County, Hydrologic Unit 10090202, on left bank 0.5 mi (0.8 km) upstream from bridge on county road, 0.5 mi (0.8 km) southwest of Arvada, and 0.8 mi (1.3 km) upstream from Wild Horse Creek.

DRAINAGE AREA.--6,050 mi² (15,670 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1919 to current year (no winter records in water years 1919-30, 1934). Records for Feb. 16-23, 1930, published in WSP 701 are unreliable and should not be used.

REVISED RECORDS.--WSP 1509: 1921(M), 1923(M), 1924-26, 1927-28(M), 1929, 1930(M), 1931, 1932(M), 1933, 1934(M), 1935-36. See PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 3,622.01 ft (1,103.989 m) above mean sea level. Prior to Oct. 24, 1938, nonrecording gage at bridge 0.5 mi (0.8 km) downstream at datum 0.14 ft (0.043 m) lower.

REMARKS.--Records poor. Numerous small reservoirs and diversions for irrigation of about 29,000 acres (117 km²) above station.

AVERAGE DISCHARGE.--45 years (water years 1931-33, 1935-76), 274 ft³/s (7.760 m³/s), 198,500 acre-ft/yr (245 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 100,000 ft³/s (2,830 m³/s) Sept. 29, 1923, gage height, 23.7 ft (7.22 m), from floodmarks, site and datum then in use, from rating curve extended above 20,000 ft³/s (566 m³/s); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 2,800 ft³/s (79.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 23	1200	*8,120	230	8.86	2.701

Minimum daily discharge, 12 ft³/s (0.340 m³/s) Nov. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBEH 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	65	172	80	104	142	530	204	499	1850	245	52	20
2	79	164	97	92	146	469	187	380	1130	232	42	20
3	99	157	110	82	144	358	187	362	840	222	166	16
4	110	164	120	95	130	286	191	305	595	411	693	15
5	110	175	127	101	112	256	195	290	500	520	469	15
6	105	168	137	88	101	222	195	320	987	285	276	13
7	102	168	148	74	106	244	200	362	689	327	322	18
8	107	172	195	86	121	248	245	429	609	172	285	18
9	110	172	312	100	146	283	265	436	444	175	172	19
10	116	172	385	108	170	300	320	492	373	162	125	23
11	129	157	448	110	185	370	305	598	346	140	110	22
12	126	116	308	109	462	317	255	670	319	120	90	24
13	136	107	230	107	520	295	270	849	294	297	74	31
14	142	183	162	106	439	289	285	876	481	137	60	39
15	157	175	125	112	545	290	290	742	588	110	49	45
16	168	183	119	118	640	334	380	804	1080	102	46	41
17	175	183	107	121	675	396	450	1140	1420	82	38	37
18	191	191	114	120	560	480	429	865	674	84	37	33
19	187	168	118	117	490	401	718	689	520	72	39	32
20	164	56	113	119	460	315	485	689	414	64	37	33
21	157	12	119	121	420	401	368	1140	396	150	33	34
22	153	74	118	121	385	380	285	942	373	159	28	33
23	164	110	117	119	362	315	255	1020	2500	105	24	70
24	164	148	113	112	335	275	240	1010	638	175	23	90
25	175	140	120	106	320	245	250	1500	674	107	23	88
26	179	125	121	105	327	265	245	1290	574	76	20	90
27	187	113	122	110	347	285	350	1060	444	82	20	146
28	187	100	120	115	430	275	332	899	368	74	21	146
29	175	83	114	122	480	212	450	856	304	42	22	168
30	172	68	122	129	---	187	527	951	276	37	20	212
31	187	---	117	134	---	208	---	1550	---	68	19	---
TOTAL	4478	4176	4858	3363	9700	9731	9358	24015	20700	5034	3435	1591
MEAN	144	139	157	108	334	314	312	775	690	162	111	53.0
MAX	191	191	448	134	675	530	718	1550	2500	520	693	212
MIN	65	12	80	74	101	187	187	290	276	37	19	13
AC-FT	8880	8280	9640	6670	19240	19300	18560	47630	41060	9980	6810	3160

CAL YR 1975 TOTAL 126374.5 MEAN 346 MAX 6500 MIN 3.4 AC-FT 250700
WTR YR 1976 TOTAL 100439.0 MEAN 274 MAX 2500 MIN 12 AC-FT 199200

06317000 POWDER RIVER AT ARVADA, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road 0.1 mi (0.2 km) south of Arvada, 0.3 mi (0.5 km) upstream from Wild Horse Creek, and 0.5 mi (0.8 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1946-57, 1968 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to September 1976 (discontinued).
WATER TEMPERATURES: March 1949 to September 1957, October 1967 to September 1976 (discontinued).
SUSPENDED-SEDIMENT DISCHARGE: April 1946 to September 1957, October 1967 to September 1971, January 1975 to current year.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of intense local rainfall.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 7,760 micromhos Sept. 12, 1969; minimum daily, 789 micromhos May 25, 1972.
WATER TEMPERATURES: Maximum, 32.0°C July 16, 1954; minimum, 0.0°C on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 113,000 mg/L July 19, 1954; minimum daily mean, no flow for many days most years.
SEDIMENT LOADS: Maximum daily, 2,340,000 tons (2,123,000 tonnes) May 24, 1952; minimum daily, 0 tons on many days most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,040 micromhos Oct. 1; minimum daily, 910 micromhos May 15, 16.
WATER TEMPERATURES: Maximum, 26.0°C Sept. 5; minimum, 0.0°C on many days during November to March.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 33,600 mg/L July 13; minimum daily mean, 110 mg/L Jan. 10.
SEDIMENT LOADS: Maximum daily, 278,000 tons (252,000 tonnes) June 23; minimum daily, 6.3 tons (5.7 tonnes) Sept. 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT										
02...	1650	83	--	--	17.5	--	--	--	710	450
03...	1300	102	4000	--	15.0	380	9.3	1100	730	480
NOV										
07...	1145	172	2400	--	5.0	450	11.1	--	550	310
DEC										
05...	1400	A127	--	--	.0	--	--	--	690	410
JAN										
09...	1200	A100	3500	--	.0	25	6.3	<1	700	360
MAR										
07...	1130	A244	3000	--	1.0	--	--	--	700	450
APR										
09...	1100	280	3200	--	11.0	550	10.4	80	630	400
MAY										
07...	1130	408	2700	--	14.0	750	--	--	570	370
JUN										
12...	1045	351	1700	--	15.0	1000	--	--	420	260
JUL										
10...	1230	162	2020	--	27.0	1500	7.2	B4000	570	390
AUG										
04...	1100	595	--	--	21.5	--	--	--	780	550
06...	1120	276	2400	--	21.0	8000	--	--	740	580
10...	1500	125	2500	7.9	24.0	3000	5.6	--	760	620
SEP										
03...	1200	18	3300	--	21.0	80	--	--	760	540

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT										
02...	150	81	590	9.6	9.3	320	0	263	1100	450
03...	140	89	550	8.9	8.8	310	0	254	1100	440
NOV										
07...	130	54	350	6.5	5.6	290	0	238	680	270
DEC										
05...	160	67	330	5.5	6.7	340	0	279	780	250
JAN										
09...	170	69	420	6.9	4.7	410	0	336	810	330
MAR										
07...	170	66	400	6.6	5.8	300	0	246	1000	220
APR										
09...	150	63	400	6.9	7.4	280	0	230	890	270
MAY										
07...	140	54	290	5.3	6.3	250	0	205	790	150
JUN										
12...	100	38	220	4.8	5.6	200	0	164	530	130
JUL										
10...	150	50	240	4.3	7.4	220	0	180	740	120
AUG										
04...	190	71	470	7.4	10	280	0	230	1000	390
06...	200	60	260	4.1	7.7	190	0	156	1000	100
10...	200	64	300	4.7	10	172	0	141	1100	97
SEP										
03...	160	90	440	6.9	9.5	270	0	221	1100	310

06317000 POWDER RIVER AT ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)
OCT										
02...	1.1	9.5	2580	3.51	578	.27	--	--	--	--
03...	1.2	7.7	2440	3.32	672	.07	--	--	--	--
NOV										
07...	.9	7.6	1640	2.23	762	.11	--	--	--	--
DEC										
05...	.9	9.7	1770	2.41	607	.16	--	--	--	--
JAN										
09...	1.0	13	2020	2.75	545	.34	--	--	--	--
MAR										
07...	1.0	7.9	2040	2.77	1340	.38	--	--	--	--
APR										
09...	1.1	8.3	1930	2.62	1460	.27	--	--	--	--
MAY										
07...	1.1	9.0	1560	2.12	1720	.47	--	--	--	--
JUN										
12...	.8	9.4	1140	1.55	1080	.43	--	--	--	--
JUL										
10...	1.1	9.4	1420	1.93	621	.97	--	--	--	--
AUG										
04...	1.0	10	2320	3.16	3730	.00	--	--	--	--
06...	1.0	10	1760	2.39	1310	.84	--	--	--	--
10...	.8	8.2	1870	2.54	631	--	.95	.91	.00	.00
SEP										
03...	1.2	7.4	2220	3.02	108	.09	--	--	--	--

DATE	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
OCT									
02...	--	--	--	--	--	.77	--	--	--
03...	--	--	--	--	--	.31	--	--	--
NOV									
07...	--	--	--	--	--	.39	--	--	--
DEC									
05...	--	--	--	--	--	.11	--	--	--
JAN									
09...	--	--	--	--	--	.05	--	--	--
MAR									
07...	--	--	--	--	--	.07	--	--	--
APR									
09...	--	--	--	--	--	.43	--	--	--
MAY									
07...	--	--	--	--	--	.79	--	--	--
JUN									
12...	--	--	--	--	--	.58	--	--	--
JUL									
10...	--	--	--	--	--	.58	--	--	--
AUG									
04...	--	--	--	--	--	.89	--	--	--
06...	--	--	--	--	--	1.4	--	--	--
10...	20	6.3	20	6.3	21	5.9	.04	5700	1.8
SEP									
03...	--	--	--	--	--	.04	--	--	--

06317000 POWDER RIVER AT ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
AUG											
10...	1500	180000	90	12	1	20	0	310	30	1	300

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
AUG											
10...	0	300	3	310000	120	400	1	540	100	5000	0

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
AUG										
10...	.7	.0	7	6	500	3	12	5	1600	10

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM
APR											
07...	1130	11.0	216	2570	1500	--	--	--	--	--	--
JUN											
01...	1140	20.0	2540	28000	192000	48	69	96	100	--	--
17...	1505	14.0	2260	44500	272000	46	67	90	96	98	100
SEP											
17...	1350	24.0	37	536	54	--	--	--	--	--	--

06317000 POWDER RIVER AT ARVADA, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4040	2660	3020	2940	2770	2330	2750	2280	1930	2050	3920	3640
2	3910	2660	3030	2960	2740	2520	2710	2250	1470	2020	3910	3580
3	3640	2420	2600	2860	2750	2860	2710	2320	1450	2790	3230	3620
4	3370	2500	2550	2830	2700	2840	2720	2330	1240	2830	2210	3650
5	3450	2520	2570	2960	2700	2810	2730	2330	1210	2020	2180	3520
6	3300	2520	2480	3020	2630	2710	2720	2170	1220	2100	2390	3520
7	3260	2480	2260	3020	2620	2710	2720	2140	1450	2120	2500	3070
8	3090	2510	2220	3040	2550	2710	2720	2140	1440	2100	2190	3290
9	3060	2510	2420	3020	2630	2620	2730	1580	1340	2120	2170	3180
10	3060	2500	2570	2970	2620	2620	2700	1580	1440	2110	2450	3730
11	3040	2750	2530	2970	2400	2620	2720	1380	1700	2240	2640	3690
12	2980	2610	2540	2960	2410	2630	2740	1360	1710	2390	2600	3710
13	2930	2720	2530	2810	1740	2630	2440	1070	1700	2430	2550	3890
14	2920	2800	2700	2810	1840	2600	2450	1080	1710	2230	3060	3900
15	2920	2740	2580	2880	1830	2610	2450	910	1720	2790	2990	3840
16	2860	2800	2890	2860	2000	2730	2420	910	1710	2840	3000	3290
17	2790	2410	2780	2750	2020	2760	1920	961	1470	3080	3000	3230
18	2760	2540	2750	2750	2020	2370	1920	958	1450	3100	3050	3200
19	2700	2540	2640	2600	1980	2360	2330	1110	1830	3140	3080	3250
20	2370	2820	2630	2580	2030	2660	2630	1060	1820	2890	3110	3210
21	2530	3020	2860	2640	2340	2680	2640	1170	1760	2920	3430	3410
22	2530	3020	3010	2660	2350	2700	2290	1170	2100	3560	3400	3410
23	2540	3020	3000	2700	2360	2570	2290	1270	2300	3520	3260	3360
24	2490	2750	3510	2700	2360	2570	2300	1300	1750	3540	3120	3060
25	2510	2930	3460	2750	2310	2710	2300	1500	1960	3520	3160	3110
26	2510	2860	3650	2760	2290	2700	2290	1520	2010	2620	3130	3120
27	2410	2940	3660	2810	2240	2800	2300	1370	2010	2650	3140	3320
28	2540	3040	3630	2870	2290	2780	2320	1400	2010	2850	3120	2810
29	2570	3040	3330	2800	2270	2760	2320	1480	2610	2860	3470	2780
30	2640	3090	3060	2830	---	2790	2250	1270	2030	3180	3450	2780
31	2600	---	2910	2770	---	2750	---	1410	---	3790	3430	---
MONTH	2910	2720	2850	2830	2340	2660	2480	1510	1720	2720	2980	3370
YEAR	MAX	4040	MIN	910	MEAN	2590						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	4.0	0.0	0.0	0.0	0.0	7.0	12.0	20.0	20.0	19.0	15.0
2	9.0	4.0	0.0	0.0	0.0	0.0	5.0	9.0	15.0	21.0	18.0	15.0
3	9.0	4.0	0.0	0.0	0.0	0.0	4.0	16.0	16.0	20.0	19.0	15.0
4	8.0	7.0	0.0	0.0	0.0	0.0	6.0	15.0	20.0	23.0	24.0	15.0
5	9.0	5.0	0.0	0.0	0.0	0.0	14.0	17.0	20.0	21.0	24.0	26.0
6	9.0	6.0	0.0	0.0	0.0	0.0	10.0	12.0	19.0	22.0	18.0	25.0
7	16.0	2.0	0.0	0.0	0.0	0.0	15.0	14.0	18.0	23.0	19.0	19.0
8	5.0	1.0	0.0	0.0	0.0	0.0	14.0	13.0	21.0	22.0	18.0	15.0
9	7.0	1.0	0.0	0.0	0.0	0.0	10.0	13.0	21.0	24.0	18.0	15.0
10	7.0	0.0	0.0	0.0	0.0	0.0	10.0	20.0	22.0	23.0	19.0	16.0
11	7.0	0.0	0.0	0.0	0.0	0.0	9.0	12.0	20.0	25.0	20.0	17.0
12	7.0	0.0	0.0	0.0	0.0	0.0	10.0	9.0	20.0	21.0	18.0	15.0
13	7.0	0.0	0.0	0.0	0.0	0.0	10.0	9.0	18.0	17.0	20.0	15.0
14	5.0	0.0	0.0	0.0	0.0	0.0	11.0	15.0	12.0	25.0	19.0	15.0
15	10.0	0.0	0.0	0.0	0.0	0.0	13.0	9.0	14.0	24.0	18.0	15.0
16	5.0	0.0	0.0	0.0	0.0	2.0	10.0	10.0	15.0	22.0	17.0	15.0
17	9.0	0.0	0.0	0.0	0.0	3.0	9.0	13.0	12.0	24.0	17.0	19.0
18	8.0	0.0	0.0	0.0	0.0	4.0	9.0	15.0	12.0	23.0	18.0	18.0
19	14.0	0.0	0.0	0.0	0.0	2.0	11.0	16.0	15.0	22.0	18.0	15.0
20	5.0	0.0	0.0	0.0	0.0	3.0	9.0	17.0	18.0	22.0	18.0	12.0
21	5.0	0.0	0.0	0.0	0.0	2.0	10.0	17.0	22.0	23.0	17.0	10.0
22	4.0	0.0	0.0	0.0	0.0	8.0	9.0	16.0	14.0	24.0	20.0	12.0
23	5.0	0.0	0.0	0.0	0.0	2.0	9.0	13.0	16.0	24.0	25.0	15.0
24	7.0	0.0	0.0	0.0	0.0	3.0	8.0	12.0	14.0	25.0	17.0	14.0
25	4.0	0.0	0.0	0.0	0.0	2.0	9.0	17.0	14.0	25.0	17.0	8.0
26	4.0	0.0	0.0	0.0	0.0	3.0	7.0	13.0	16.0	22.0	24.0	9.0
27	2.0	0.0	0.0	0.0	0.0	2.0	4.0	15.0	15.0	20.0	15.0	16.0
28	2.0	0.0	0.0	0.0	0.0	3.0	5.0	18.0	22.0	25.0	16.0	11.0
29	3.0	0.0	0.0	0.0	0.0	8.0	10.0	20.0	21.0	18.0	16.0	10.0
30	4.0	0.0	0.0	0.0	---	2.0	8.0	18.0	21.0	21.0	15.0	10.0
31	4.0	---	0.0	0.0	---	3.0	---	20.0	---	18.0	15.0	---
MONTH	6.5	1.0	0.0	0.0	0.0	1.5	9.0	14.5	17.5	22.0	18.5	15.0
YEAR	MAX	26.0	MIN	0.0	MEAN	9.0						

06317000 POWDER RIVER AT ARVADA, WY--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	65	465	82	172	2000	929	80	300	65
2	79	2250	480	164	2000	886	97	350	92
3	99	2050	548	157	1700	721	110	240	71
4	110	1950	579	164	1700	753	120	270	87
5	110	1950	579	175	1700	803	127	320	110
6	105	1800	510	168	1750	794	137	250	92
7	102	1800	496	168	1550	703	148	350	140
8	107	1500	433	172	1550	720	195	480	253
9	110	1450	431	172	1550	720	312	1000	842
10	116	1800	564	172	1200	557	385	1550	1610
11	129	1700	592	157	950	403	448	3400	4110
12	126	1550	527	116	1200	376	308	1400	1160
13	136	1600	588	107	1350	390	230	1150	714
14	142	1800	690	183	1250	618	162	1300	569
15	157	1950	827	175	1250	591	125	430	145
16	168	2100	953	183	1300	642	119	130	42
17	175	2250	1060	183	1250	618	107	140	40
18	191	2900	1500	191	1250	645	114	150	46
19	187	2800	1410	168	1250	567	118	180	57
20	164	2400	1060	56	850	129	113	170	52
21	157	1850	784	12	280	9.1	119	170	55
22	153	1850	764	74	270	54	118	180	57
23	164	1800	797	110	280	83	117	200	63
24	164	1750	775	148	270	108	113	270	82
25	175	2450	1160	140	240	91	120	260	84
26	179	2700	1300	125	200	67	121	220	72
27	187	2400	1210	113	210	64	122	170	56
28	187	1950	985	100	300	81	120	170	55
29	175	1950	921	83	260	58	114	210	65
30	172	2250	1040	68	270	50	122	160	53
31	187	2200	1110	---	---	---	117	140	44
TOTAL	4478	---	24755	4176	---	13230.1	4858	---	10983

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	104	160	45	142	330	127	530	2100	3010
2	92	160	40	146	330	130	469	2100	2660
3	82	170	38	144	280	109	358	1800	1740
4	95	180	46	130	330	116	286	1300	1000
5	101	180	49	112	280	85	256	900	622
6	88	190	45	101	290	79	222	510	306
7	74	160	32	106	310	89	244	460	303
8	86	160	37	121	260	85	248	480	321
9	100	140	38	146	280	110	283	1050	802
10	108	110	32	170	290	133	300	1300	1050
11	110	200	59	185	230	115	370	1000	999
12	109	200	59	462	220	274	317	1050	899
13	107	220	64	520	280	393	295	1150	916
14	106	290	83	439	240	284	289	1100	858
15	112	270	82	545	120	177	290	850	666
16	118	250	80	640	180	311	334	2100	1890
17	121	240	78	675	180	328	396	3900	4170
18	120	210	68	560	240	363	480	5500	7130
19	117	220	69	490	320	423	401	5900	6390
20	119	220	71	460	310	385	315	6000	5100
21	121	280	91	420	190	215	401	5900	6390
22	121	300	98	385	200	208	380	5700	5850
23	119	270	87	362	290	283	315	4500	3830
24	112	260	79	335	330	298	275	4300	3190
25	106	300	86	320	210	181	245	3400	2250
26	105	320	91	327	240	212	265	3300	2360
27	110	300	89	347	390	365	285	2700	2080
28	115	330	102	430	820	952	275	2700	2000
29	122	320	105	480	1400	1810	212	2800	1600
30	129	330	115	---	---	---	187	2700	1360
31	134	310	112	---	---	---	208	2700	1520
TOTAL	3363	---	2170	9700	---	8640	9731	---	73262

06317000 POWDER RIVER AT ARVADA, WY--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	204	2700	1490	499	6000	8080	1850	29600	159000
2	187	2200	1110	380	5400	5540	1130	22300	68000
3	187	2200	1110	362	4800	4690	840	18000	40800
4	191	2300	1190	305	4200	3460	595	10000	16100
5	195	2200	1160	290	3700	2900	500	9900	13400
6	195	2200	1160	320	4000	3460	987	20800	79000
7	200	2300	1240	362	4200	4110	689	16200	31400
8	245	2300	1520	429	4100	4750	609	7900	13000
9	265	3100	2220	436	4300	5060	444	5200	6230
10	320	3200	2760	492	4800	6380	373	5300	5340
11	305	3300	2720	598	6700	10800	346	5200	4860
12	255	3300	2270	670	6600	11900	319	4200	3620
13	270	3000	2190	849	8800	20200	294	2700	2140
14	285	2800	2150	876	9100	21500	481	11800	15300
15	290	2900	2270	742	7600	15200	588	11100	17600
16	380	3100	3180	804	7500	16300	1080	14100	45100
17	450	3000	3650	1140	9100	28000	1420	27700	118000
18	429	4400	5100	865	6800	15900	674	18700	34000
19	718	13000	25200	689	4500	8370	520	6100	8560
20	485	7600	9950	689	4600	8560	414	6400	7150
21	368	4100	4070	1140	9580	34500	396	6500	6950
22	285	3300	2540	942	10100	25700	373	5600	5640
23	255	3200	2200	1020	10100	27800	2500	21100	278000
24	240	3300	2140	1010	10100	27500	638	10000	17200
25	250	3200	2160	1500	15800	64000	674	12700	23100
26	245	3200	2120	1290	13400	46700	574	10100	15700
27	350	4600	4350	1060	11800	33800	444	9400	11300
28	332	4600	4120	899	12000	29100	368	7300	7250
29	450	5700	6930	856	9200	21300	304	5600	4600
30	527	6100	8680	951	10200	26200	276	[illegible]	3650
31	---	---	---	1550	15400	64400	---	---	---
TOTAL	9358	---	112950	24015	---	606160	20700	---	1061990

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	245	5250	3470	52	1200	168	20	180	9.7
2	232	5700	3570	42	1400	159	20	220	12
3	222	5800	3480	166	11100	9390	16	210	9.1
4	411	14800	16400	693	28500	53300	15	180	7.3
5	520	18900	26500	469	27500	34800	15	210	8.5
6	285	11600	8930	276	24000	17900	13	180	6.3
7	327	10800	9540	322	21800	19000	18	310	15
8	172	6000	2790	285	18500	14200	18	200	9.7
9	175	5600	2650	172	14000	6500	19	220	11
10	162	3800	1660	125	10300	3480	23	310	19
11	140	2900	1100	110	7200	2140	22	300	18
12	120	2000	648	90	4300	1040	24	390	25
13	297	33600	30800	74	2100	420	31	760	64
14	137	10300	3810	60	1100	178	39	910	96
15	110	2360	701	49	1070	142	45	940	114
16	102	1880	518	46	1030	128	41	810	90
17	82	1250	277	38	880	90	37	560	56
18	84	1450	329	37	860	86	33	380	34
19	72	1370	266	39	780	82	32	400	35
20	64	900	156	37	610	61	33	340	30
21	150	5850	3010	33	630	56	34	350	32
22	159	8100	3480	28	620	47	33	380	34
23	105	5200	1470	24	540	35	70	3000	567
24	175	8600	4060	23	490	30	90	6600	1600
25	107	7100	2050	23	460	29	88	6700	1590
26	76	5800	1190	20	420	23	90	6600	1600
27	82	5000	1110	20	360	19	146	8800	3470
28	74	3300	659	21	370	21	146	8400	3310
29	42	1500	170	22	330	20	168	9100	4130
30	37	1000	100	20	360	19	212	10000	5720
31	68	2200	404	19	300	15	---	---	---
TOTAL	5034	---	135298	3435.	---	163578	1591	---	22722.6
YEAR	100439.0		2235739						

06317000 POWDER RIVER AT ARVADA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 10.76
TIME	1500
TOTAL CELLS/ML	5700
DIVERSITY: DIVISION	0.0
.CLASS	0.0
..ORDER	0.0
...FAMILY	0.0
....GENUS	0.0

ORGANISM	CELLS /ML	PER- CENT
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..PENNALES		
...NITZSCHIACEAE		
....NITZSCHIA	5700#	101

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM. MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06318500 CLEAR CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°19'58", long 106°46'36", in SE¼SW¼NW¼ sec.6, T.50 N., R.82 W., Johnson County, Hydrologic Unit 10090206, on left bank 500 ft (152 m) upstream from abandoned Pacific Power & Light Company powerplant, 2.0 mi (3.2 km) downstream from Mosier Gulch, and 4.0 mi (6.4 km) west of Buffalo.

DRAINAGE AREA.--120 mi² (311 km²).

PERIOD OF RECORD.--April to September 1894, May to September 1896, May 1897 to December 1899, June 1917 to October 1927, April 1938 to current year. Published as "at Buffalo" 1897-98. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1896, 1898, 1938, 1939(M), 1945(M). WSP 1729: 1921.

GAGE.--Water-stage recorder. Datum of gage is 5,184.83 ft (1,580.336 m) above mean sea level. See WSP 1916 for history of changes prior to 1961.

REMARKS.--Records good except those for winter period, which are poor. No gage-height record Nov. 9 to Dec. 15. Diversions above station for irrigation of about 330 acres (1.34 km²), of which about 320 acres (1.30 km²) lies below station.

AVERAGE DISCHARGE.--50 years (water years 1898-99, 1918-27, 1939-76), 63.0 ft³/s (1.784 m³/s), 45,640 acre-ft/yr (56.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,420 ft³/s (96.9 m³/s) June 15, 1963, gage height, 6.19 ft (1.887 m), from rating curve extended above 900 ft³/s (25.5 m³/s) on basis of velocity-area study; no flow Feb. 14-16, 1939, Nov. 12, 13, 1940.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 380 ft³/s (10.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	(m³/s)	Gage height (ft)	(m)
May 22	0130	580	16.4	3.67	1.119
May 30	0130	525	14.9	3.61	1.100
June 7	0700	*610	17.3	3.83	1.167

Minimum daily discharge, 12 ft³/s (0.34 m³/s) Jan. 26, Feb. 5, 6, 21, 22, Mar. 1-5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	29	17	16	14	12	19	40	340	202	63	32
2	27	30	20	16	14	12	18	55	402	236	185	30
3	26	31	22	16	14	12	20	63	419	197	187	28
4	24	32	22	16	13	12	22	83	478	173	145	27
5	24	31	23	15	12	12	26	98	468	176	122	27
6	23	31	23	15	12	13	26	70	491	185	104	26
7	22	29	23	15	14	14	27	63	550	192	81	32
8	22	26	23	15	14	14	30	96	491	178	56	39
9	23	22	23	15	14	14	35	128	398	164	51	37
10	23	23	24	15	14	14	44	134	355	164	53	35
11	23	25	24	15	14	14	58	173	306	160	50	34
12	23	23	24	15	14	14	69	149	254	147	48	33
13	24	25	24	15	13	14	64	139	212	156	46	36
14	26	26	22	15	14	14	52	200	204	130	44	34
15	26	27	22	15	13	14	44	242	197	112	41	33
16	27	27	21	15	14	14	46	192	202	101	39	32
17	27	26	21	15	14	13	32	202	182	88	37	31
18	26	24	20	15	13	15	30	251	149	87	36	30
19	25	22	18	14	14	16	29	306	137	77	37	43
20	25	17	18	14	13	16	26	355	132	85	35	42
21	24	17	18	14	12	14	30	390	223	78	34	39
22	24	17	18	14	12	14	27	450	290	69	34	40
23	24	17	18	14	13	15	33	410	313	63	34	63
24	23	18	17	14	13	15	30	352	226	60	33	63
25	21	18	17	13	13	15	40	394	173	57	33	61
26	34	17	17	12	13	15	50	363	143	60	32	58
27	29	18	17	14	13	15	33	322	122	55	35	54
28	21	18	17	14	13	15	37	359	109	53	34	50
29	30	18	17	14	13	14	35	496	110	51	32	48
30	34	17	16	14	---	15	34	455	128	50	32	45
31	32	---	16	14	---	16	---	337	---	48	35	---
TOTAL	790	701	622	453	386	436	1066	7367	8204	3654	1828	1182
MEAN	25.5	23.4	20.1	14.6	13.3	14.1	35.5	238	273	118	59.0	39.4
MAX	34	32	24	16	14	16	69	496	550	236	187	63
MIN	21	17	16	12	12	12	18	40	109	48	32	26
AC-FT	1570	1390	1230	899	766	865	2110	14610	16270	7250	3630	2340

CAL YR 1975 TOTAL 31106.7 MEAN 85.2 MAX 662 MIN 9.7 AC-FT 61700
WTR YR 1976 TOTAL 26689.0 MEAN 72.9 MAX 550 MIN 12 AC-FT 52940

06319470 SOUTH ROCK CREEK AT FOREST BOUNDARY, NEAR BUFFALO, WY

LOCATION.--Lat 44°26'37", long 106°55'12", in SW¼SW¼SW¼ sec.25, T.52 N., R.84 W., Johnson County, Hydrologic Unit 10090206, on right bank just downstream from Bighorn National Forest boundary, 0.2 mi (0.3 km) downstream from unnamed left bank tributary, 0.7 mi (1.1 km) upstream from Red Canyon, and 13 mi (21 km) northwest of Buffalo.

DRAINAGE AREA.--40.3 mi² (104.4 km²).

PERIOD OF RECORD.--November 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,800 ft (1,770 m), from topographic map.

REMARKS.--Records fair. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 426 ft³/s (12.1 m³/s) June 25, 1975, gage height, 3.93 ft (1.198 m); maximum gage height, 4.00 ft (1.219 m) June 24, 1975 (backwater from log); minimum daily discharge, 2.3 ft³/s (0.065 m³/s) Feb. 8, Mar. 28, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 232 ft³/s (6.57 m³/s) June 4, gage height, 3.38 ft (1.030 m); minimum daily, 2.9 ft³/s (0.082 m³/s) Mar. 15-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	5.9	5.2	4.8	4.3	3.2	3.6	8.8	143	90	30	6.8
2	6.5	6.1	5.2	4.8	4.3	3.2	3.7	12	156	77	97	6.3
3	5.9	6.1	5.2	4.8	4.3	3.1	3.4	15	167	60	36	5.9
4	5.7	6.3	5.4	5.2	4.1	3.0	4.1	19	179	57	24	5.9
5	5.7	6.3	5.4	5.4	4.3	3.1	4.8	24	169	56	21	5.7
6	5.7	6.1	5.2	5.2	4.1	3.1	5.7	19	174	60	20	5.2
7	5.4	5.9	5.2	4.8	4.1	3.1	6.3	18	175	65	16	7.7
8	5.4	5.0	5.2	4.8	4.1	3.1	6.1	26	145	52	14	9.1
9	5.7	3.2	5.4	4.8	4.1	3.1	7.5	33	125	46	14	8.0
10	5.9	4.0	5.4	4.8	3.9	3.2	8.0	40	117	45	13	7.0
11	5.9	5.2	5.2	4.8	3.9	3.1	8.8	55	104	44	13	6.5
12	5.7	5.0	5.2	4.6	3.9	3.1	11	47	88	41	13	6.5
13	5.9	5.4	5.2	4.5	3.9	3.1	12	45	72	41	12	7.2
14	6.3	5.9	5.0	4.5	3.9	3.1	11	70	76	38	12	6.8
15	6.1	5.4	5.0	4.5	3.7	2.9	8.8	72	80	33	11	6.3
16	6.3	5.4	5.0	4.6	3.6	2.9	9.6	55	99	30	10	5.9
17	6.3	5.2	4.8	4.6	3.6	2.9	7.5	61	88	27	9.9	5.4
18	6.5	5.0	5.0	4.6	3.6	3.2	6.3	83	80	26	9.6	5.4
19	6.3	4.8	5.2	4.5	3.4	3.4	5.9	110	84	26	9.9	7.5
20	5.9	3.0	5.2	4.5	3.4	3.4	4.4	118	108	27	9.4	7.5
21	5.9	4.0	5.2	4.5	3.4	3.2	6.3	129	136	26	8.8	6.5
22	6.1	4.8	5.0	4.5	3.4	3.1	5.9	175	140	23	8.6	5.9
23	5.7	5.2	5.0	4.6	3.4	3.4	6.5	166	129	21	8.3	15
24	5.4	5.4	5.0	4.5	3.2	3.2	6.3	154	98	20	8.3	14
25	5.2	5.4	5.0	4.3	3.2	3.2	8.0	155	84	19	8.3	9.9
26	5.0	5.4	5.0	4.3	3.2	3.2	7.0	156	78	19	7.7	9.9
27	5.0	5.4	5.0	4.3	3.2	3.4	5.8	155	68	19	8.8	9.9
28	5.0	5.2	5.0	4.1	3.2	3.4	6.0	184	66	17	8.3	8.3
29	5.6	5.2	5.0	4.1	3.2	3.2	6.1	189	70	16	7.2	7.7
30	6.3	5.0	5.0	4.1	---	3.1	6.5	155	76	15	7.0	7.0
31	6.3	---	5.2	4.3	---	3.2	---	126	---	14	7.2	---
TOTAL	181.1	156.2	159.0	142.7	107.9	97.9	202.9	2674.8	3374	1150	483.3	226.7
MEAN	5.84	5.21	5.13	4.60	3.72	3.16	6.76	86.3	112	37.1	15.6	7.56
MAX	6.5	6.3	5.4	5.4	4.3	3.4	12	189	179	90	97	15
MIN	5.0	3.0	4.8	4.1	3.2	2.9	3.4	8.8	66	14	7.0	5.2
AC-FT	359	310	315	283	214	194	402	5310	6690	2280	959	450

CAL YR 1975 TOTAL 11225.4 MEAN 30.8 MAX 338 MIN 2.3 AC-FT 22270
WTR YR 1976 TOTAL 8956.5 MEAN 24.5 MAX 189 MIN 2.9 AC-FT 17770

06319480 SOUTH ROCK CREEK ABOVE RED CANYON, NEAR BUFFALO, WY

LOCATION.--Lat 44°26'36", long 106°54'36", in SW¼SW¼SE¼ sec.25, T.52 N., R.84 W., Johnson County, Hydrologic Unit 10090206, on left bank 0.2 mi (0.3 km) upstream from Red Canyon and 13 mi (21 km) northwest of Buffalo.

DRAINAGE AREA.--40.5 mi^2 (104.9 km^2).

PERIOD OF RECORD.--November 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,590 ft (1,700 m), from topographic map.

REMARKS.--Records good except those for March anu April, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 400 ft^3/s (11.3 m^3/s) June 24, 1975, gage height, 2.87 ft (0.875 m); minimum daily, 2.3 ft^3/s (0.065 m^3/s) Mar. 28, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 240 ft^3/s (6.80 m^3/s) June 4, gage height, 2.36 ft (0.719 m); minimum daily, 2.6 ft^3/s (0.074 m^3/s) Mar. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	5.4	4.2	3.2	3.0	3.1	3.4	7.8	150	97	28	7.6
2	5.7	5.6	4.3	3.0	3.0	3.1	3.4	11	162	83	86	7.3
3	5.4	5.6	4.4	3.0	3.0	3.1	3.3	13	173	65	37	7.1
4	5.3	5.8	4.4	3.0	3.0	3.0	3.5	16	181	62	28	7.0
5	5.2	5.8	4.4	3.0	3.0	3.1	3.9	22	168	61	23	6.8
6	5.2	6.1	4.3	3.1	3.0	3.1	5.2	18	175	63	22	6.6
7	5.2	5.6	4.3	3.1	3.0	3.0	5.1	16	177	66	18	8.9
8	5.3	4.9	4.3	3.1	3.0	3.0	5.2	23	154	54	16	11
9	5.4	3.0	4.4	3.1	3.0	3.1	6.4	32	130	49	16	9.6
10	5.6	3.8	4.5	3.1	3.0	3.1	7.5	38	124	47	16	8.5
11	5.6	5.2	4.4	3.1	3.1	2.8	7.6	49	108	46	15	7.6
12	5.4	5.1	4.4	3.1	3.2	2.7	9.8	43	92	42	15	7.8
13	5.4	4.8	4.3	3.1	3.2	2.7	11	42	75	42	14	8.7
14	5.8	5.7	4.2	3.1	3.2	2.7	10	63	76	37	13	8.2
15	5.7	5.7	4.2	3.1	3.2	2.7	7.3	65	85	32	12	7.6
16	6.0	5.6	4.3	3.2	3.2	2.6	7.8	49	101	31	12	7.1
17	6.1	5.4	3.9	3.2	3.2	2.7	7.1	54	90	28	11	7.0
18	6.1	5.3	3.5	3.2	3.2	3.0	6.6	75	83	28	11	7.0
19	6.1	5.1	3.9	3.2	3.2	3.3	5.4	101	90	28	11	8.9
20	6.1	2.8	3.9	3.2	3.1	3.3	3.3	107	114	28	10	8.9
21	5.7	4.5	3.8	3.2	3.1	3.2	4.7	112	144	25	9.6	7.8
22	5.7	4.7	3.6	3.2	3.1	3.1	4.5	152	146	22	9.3	7.5
23	5.2	4.4	3.6	3.0	3.1	3.1	5.1	142	134	20	8.9	17
24	4.9	4.4	3.6	2.8	3.1	3.2	4.9	134	101	20	8.9	14
25	4.7	4.5	3.5	2.7	3.1	3.1	6.4	134	90	19	9.1	10
26	4.2	4.5	3.6	2.7	3.1	3.1	5.7	136	83	18	8.5	10
27	4.2	4.3	3.6	2.7	3.1	3.1	5.4	138	75	18	9.8	9.8
28	4.2	4.3	3.6	3.0	3.1	3.1	5.7	166	72	17	9.1	8.5
29	4.2	4.2	3.6	3.0	3.1	3.0	6.4	185	76	16	8.2	7.6
30	5.1	4.2	3.6	3.0	---	3.1	6.3	154	83	15	7.8	7.1
31	5.6	---	3.5	3.0	---	3.0	---	132	---	15	8.0	---
TOTAL	165.9	146.3	124.1	94.5	89.7	93.3	177.9	2429.8	3512	1194	511.2	258.5
MEAN	5.35	4.88	4.00	3.05	3.09	3.01	5.93	78.4	117	38.5	16.5	8.62
MAX	6.1	6.1	4.5	3.2	3.2	3.3	11	185	181	97	86	17
MIN	4.2	2.8	3.5	2.7	3.0	2.6	3.3	7.8	72	15	7.8	6.6
AC-FT	329	290	246	187	178	185	353	4820	6970	2370	1010	513

CAL YR 1975 TOTAL 10913.1 MEAN 29.9 MAX 293 MIN 2.3 AC-FT 21650
WTR YR 1976 TOTAL 8797.2 MEAN 24.0 MAX 185 MIN 2.6 AC-FT 17450

06320000 ROCK CREEK NEAR BUFFALO, WY

LOCATION.--Lat 44°27'22", long 106°52'42", in NW¼NW¼NW¼ sec.29, T.52 N., R.83 W., Johnson County, Hydrologic Unit 10090206, on left bank 300 ft (91 m) downstream from confluence of North and South Forks and 11.5 mi (18.5 km) northwest of Buffalo.

DRAINAGE AREA.--60.0 mi^2 (155.4 km^2).

PERIOD OF RECORD.--April to August 1941, April to December 1942, May 1943 to November 1944, April 1945 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1309.

GAGE.--Water-stage recorder. Altitude of gage is 5,280 ft (1,609 m), from topographic map. Prior to Jan. 8, 1944, nonrecording gages 600 ft (183 m) upstream on North and South Forks at different datums. Jan. 8, 1944, to Sept. 30, 1952, water-stage recorder at present site at datum 0.72 ft (0.219 m) lower.

REMARKS.--Records fair. Water is imported into drainage basin above station from South Piney Creek. Diversions for irrigation of about 250 acres (1.01 km^2) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--27 years (water years 1944, 1946-71), 36.4 ft^3/s (1.031 m^3/s), 26,370 acre-ft/yr (32.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,860 ft^3/s (52.7 m^3/s) June 15, 1963, gage height, 7.98 ft (2.432 m), from rating curve extended above 450 ft^3/s (12.7 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft^3/s (0.014 m^3/s) Sept. 19, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, about 8.05 ft (2.454 m), probably during 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 336 ft^3/s (9.52 m^3/s) July 20, gage height, 5.59 ft (1.704 m); minimum daily during period of operation, 6.8 ft^3/s (0.19 m^3/s) Apr. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							7.0	16	198	117	72	21
2							6.8	15	204	104	138	20
3							7.2	17	215	84	75	20
4							7.6	23	222	78	60	20
5							8.0	37	208	74	50	19
6							8.3	30	215	75	50	17
7							9.6	28	215	79	45	22
8							8.3	41	184	65	42	26
9							11	59	159	58	41	25
10							12	70	147	56	41	23
11							13	84	133	54	40	22
12							17	73	111	51	42	23
13							20	73	92	52	45	24
14							17	108	108	48	44	20
15							13	122	112	43	43	18
16							17	94	140	39	43	17
17							13	104	131	36	43	17
18							12	137	123	36	47	17
19							9.9	166	133	36	45	20
20							8.1	180	164	50	36	19
21							9.9	182	192	51	36	17
22							8.8	232	188	45	36	17
23							11	218	178	42	36	27
24							9.9	206	144	39	34	28
25							13	206	125	39	28	25
26							19	204	116	39	26	26
27							17	200	99	43	25	25
28							17	230	91	47	23	20
29							16	258	102	47	22	19
30							17	218	106	47	22	18
31							---	188	---	47	22	---
TOTAL							364.4	3819	4555	1721	1352	632
MEAN							12.1	123	152	55.5	43.6	21.1
MAX							20	258	222	117	138	28
MIN							6.8	15	91	36	22	17
AC-FT							723	7570	9030	3410	2680	1250

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY

LOCATION.--Lat 44°21'44", long 106°39'13", in SW¼SE¼NW¼ sec.30, T.51 N., R.81 W., Johnson County, Hydrologic Unit 10090206, on right bank 100 ft (30 m) downstream from bridge on county road, 0.5 mi (0.8 km) downstream from Rock Creek, and 2.5 mi (4.0 km) northeast of Buffalo.

DRAINAGE AREA.--322 mi^2 (834 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1971 to current year (no winter records prior to 1976). Records prior to October 1975 in files of Office of Wyoming State Engineer.

GAGE.--Water-stage recorder. Altitude of gage is 4,480 ft (1,366 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 13,500 acres (54.6 km^2), of which 269 acres (1.09 km^2) lies below station.

COOPERATION.--Gage-height record and discharge measurements for June to September furnished by Office of the Wyoming State Engineer.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,060 ft^3/s (58.3 m^3/s) May 30, 1971, gage height, 6.28 ft (1.914 m); minimum daily, 10 ft^3/s (0.28 m^3/s) Aug. 30031, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 625 ft^3/s (17.7 m^3/s) June 7, gage height, 4.09 ft (1.247 m); minimum daily, 15 ft^3/s (0.42 m^3/s) Sept. 5-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	56	33	37	40	39	41	122	413	164	56	24
2	32	52	44	34	43	35	43	100	435	252	392	20
3	31	52	56	37	35	37	41	100	471	262	252	18
4	30	52	57	40	33	52	42	105	514	209	154	17
5	27	52	58	38	31	49	46	139	518	183	121	15
6	27	52	54	35	30	52	57	131	542	181	100	15
7	26	52	50	31	37	57	58	105	581	196	79	18
8	25	50	56	35	44	60	54	117	577	192	58	28
9	26	45	58	44	55	56	60	160	477	166	55	33
10	28	41	55	46	52	60	70	181	413	148	58	30
11	29	43	48	41	49	48	80	225	345	144	56	27
12	30	55	44	44	52	46	100	247	301	143	51	26
13	30	55	41	38	60	51	99	218	242	160	49	31
14	32	50	38	35	64	45	85	230	214	143	41	29
15	36	52	41	42	61	38	66	309	242	114	37	26
16	39	52	49	47	66	44	66	275	240	100	34	24
17	39	52	47	46	65	48	70	254	237	85	34	22
18	39	56	45	47	60	51	55	280	203	79	34	23
19	39	52	44	42	57	51	49	348	172	64	37	34
20	39	49	44	42	58	42	42	407	166	60	35	41
21	39	44	44	44	55	39	41	438	235	97	36	37
22	41	39	44	46	61	39	41	514	365	56	35	38
23	43	37	44	41	50	43	41	507	438	43	34	60
24	43	42	44	37	48	40	41	477	371	35	29	85
25	39	40	47	32	46	41	44	471	277	31	28	80
26	46	37	44	31	52	38	72	474	225	54	27	83
27	61	34	46	36	55	39	94	413	183	55	33	82
28	55	31	45	37	48	39	74	407	152	35	33	72
29	54	28	43	44	45	37	77	518	137	27	29	66
30	60	25	48	42	---	37	97	552	137	28	24	61
31	60	---	45	40	---	40	---	454	---	28	28	---
TOTAL	1178	1377	1456	1231	1452	1393	1846	9278	9823	3534	2069	1165
MEAN	38.0	45.9	47.0	39.7	50.1	44.9	61.5	299	327	114	66.7	38.8
MAX	61	56	58	47	66	60	100	552	581	262	392	85
MIN	25	25	33	31	30	35	41	100	137	27	24	15
AC-FT	2340	2730	2890	2440	2880	2760	3660	18400	19480	7010	4100	2310

WTR YR 1976 TOTAL 35802 MEAN 97.8 MAX 581 MIN 15 AC-FT 71010

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1975 to September 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
NOV											
11...	1600	45	1050	8.2	2.0	3	12.8	--	460	250	110
DEC											
09...	1310	A58	1000	8.1	3.0	2	10.8	2.8	400	220	94
JAN											
13...	1430	A38	600	7.6	.0	4	11.2	2.2	350	180	85
FEB											
10...	1530	A52	720	7.7	.5	10	11.4	9.4	330	190	74
MAR											
04...	1415	52	--	--	.0	--	--	--	--	--	--
11...	1400	49	990	8.1	1.0	3	11.4	3.4	450	280	110
APR											
08...	0915	54	--	--	6.5	--	--	--	--	--	--
13...	1630	92	500	8.2	11.0	5	10.0	5.0	190	93	44
MAY											
10...	1600	187	340	7.9	14.5	11	9.0	3.5	130	57	31
JUN											
15...	1630	233	460	8.1	14.5	3	9.2	3.5	180	110	42
JUL											
13...	1640	170	350	8.0	22.0	4	8.5	2.2	150	77	35
AUG											
09...	1630	57	820	8.0	23.0	4	8.5	4.1	360	190	86
30...	1630	26	945	8.6	18.0	1	9.2	2.4	450	240	100
SEP											
06...	1615	16	1180	8.5	20.0	3	9.4	4.2	490	280	110

A Daily mean discharge.

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
NOV											
11...	44	56	1.1	3.2	250	0	205	360	5.0	.3	11
DEC											
09...	39	52	1.1	3.4	216	0	177	320	4.5	.2	11
JAN											
13...	34	41	1.0	2.7	215	0	176	250	3.8	.2	12
FEB											
10...	36	38	.9	12	172	0	141	250	7.0	.1	9.9
MAR											
04...	--	--	--	--	--	--	--	--	--	--	--
11...	43	53	1.1	3.9	210	0	172	380	5.6	.2	11
APR											
08...	--	--	--	--	--	--	--	--	--	--	--
13...	19	22	.7	2.7	116	0	95	130	2.8	.1	9.0
MAY											
10...	13	16	.6	2.0	90	0	74	88	2.3	.1	11
JUN											
15...	18	21	.7	1.8	82	0	67	170	1.9	.1	11
JUL											
13...	14	16	.6	1.8	83	0	68	100	1.5	.1	8.0
AUG											
09...	35	43	1.0	3.5	210	0	172	260	4.0	.2	11
30...	48	55	1.1	3.4	215	17	205	340	6.1	.3	8.9
SEP											
06...	53	64	1.3	3.9	242	10	215	430	6.3	.3	9.0

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)
NOV										
11...	713	.97	86.6	.05	--	.01	--	.76	--	.77
DEC										
09...	631	.86	98.8	.12	--	.28	--	.82	--	1.1
JAN										
13...	535	.73	54.9	.22	--	.71	--	.99	--	1.7
FEB										
10...	512	.70	71.9	.39	--	.27	--	2.5	--	2.8
MAR										
04...	--	--	--	--	--	--	--	--	--	--
11...	710	.97	93.9	.21	--	.22	--	1.4	--	1.6
APR										
08...	--	--	--	--	--	--	--	--	--	--
13...	287	.39	71.3	.07	--	.09	--	.88	--	.97
MAY										
10...	208	.28	105	.08	--	.10	--	1.0	--	1.1
JUN										
15...	306	.42	193	.16	--	.01	--	.34	--	.35
JUL										
13...	217	.30	99.6	.06	--	.01	--	.64	--	.65
AUG										
09...	546	.74	84.0	.04	--	.04	--	1.1	--	1.1
30...	685	.93	48.1	.03	.00	.00	.00	.40	.55	.40
SEP										
06...	806	1.10	34.8	.01	--	.05	--	.79	--	.84

DATE	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
NOV										
11...	--	.82	.09	--	100	30	--	--	15	1.8
DEC										
09...	--	1.2	.10	--	80	90	--	--	33	5.2
JAN										
13...	--	1.9	.28	--	100	100	--	--	17	1.7
FEB										
10...	--	3.2	.31	--	140	190	--	--	27	3.8
MAR										
04...	--	--	--	--	--	--	--	--	6	.56
11...	--	1.8	.16	--	80	40	--	--	18	2.4
APR										
08...	--	--	--	--	--	--	--	--	20	2.9
13...	--	1.0	.10	--	30	90	--	--	--	--
MAY										
10...	--	1.2	.12	--	40	80	--	--	68	34
JUN										
15...	--	.51	.07	--	50	60	--	--	--	--
JUL										
13...	--	.71	.06	--	40	40	--	--	--	--
AUG										
09...	--	1.1	.12	--	90	40	--	--	--	--
30...	.55	.43	.10	.05	120	20	14000	8.2	8	.56
SEP										
06...	--	.85	.16	--	120	30	--	--	--	--

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)
JAN 13...	1430	130	0	0	0	0	0	10	0	0	0
APR 13...	1630	40	--	0	--	0	--	<10	--	10	--
JUL 13...	1640	160	--	1	--	0	--	<10	--	0	--
AUG 30...	1630	70	10	0	1	0	0	<10	0	0	0

DATE	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
JAN 13...	10	1	160	<100	0	10	8	60	50	.1
APR 13...	10	--	680	<100	--	10	--	60	--	.0
JUL 13...	10	--	300	<100	--	10	--	30	--	.0
AUG 30...	<10	1	90	<100	1	20	20	30	20	.0

DATE	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
JAN 13...	.2	0	0	<50	2	1	1	.3	20	0
APR 13...	--	0	--	<50	--	0	--	--	30	--
JUL 13...	--	0	--	<50	--	0	--	--	30	--
AUG 30...	.0	0	0	<50	4	1	1	--	20	0

06320200 CLEAR CREEK BELOW ROCK CREEK, NEAR BUFFALO, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	NUMBER OF SAM- PLING POINTS	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
AUG								
30...	1630	18.0	26	5	1	2	12	35
SEP								
02...	1630	18.0	26	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
AUG								
30...	50	56	64	74	85	95	100	--
SEP								
02...	--	--	50	57	83	98	99	100

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 30,76
TIME	1630
TOTAL CELLS/ML	14000
DIVERSITY: DIVISION	0.5
.CLASS	0.5
..ORDER	0.7
...FAMILY	1.6
....GENUS	1.9

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...COELASTRACEAE		
....COELASTRUM	1500	11
...OOCYSTACEAE		
....DICTYOSPHAERIUM	340	3
....OOCYSTIS	430	3
...SCENEDESMACEAE		
....ACTINASTRUM	690	5
....SCENEDESMUS	9700#	67
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	510	4
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	170	2
..PENNALES		
...ACHNANTHACEAE		
....COCCONEIS	86	1
...CYMBELLACEAE		
....AMPHORA	86	1
...NAVICULACEAE		
....NAVICULA	510	4
...NITZSCHIACEAE		
....NITZSCHIA	260	2
EUGLENOPHYTA (EUGLENOIDS)		
.CRYPTOPHYCEAE		
..CRYPTOMONIDALES		
...CRYPTOMONODACEAE		
....CRYPTOMONAS	170	2

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

AUG. 30, 1976
1630 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME	_COMMON__NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...HYDRODICTYACEAE	
O	....PEDIASTRUM	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
E	....CLADOPHORA	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....CLOSTERIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
O	....MELOSIRA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....EPITHEMIA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....GYROSIGMA	
E	....NAVICULA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...SURIRELLACEAE	
O	....CYMATOPLEURA	
O	....SURIRELLA	
	...ACHNANTHACEAE	
E	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
E	....LYNGBYA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06320400 CLEAR CREEK AT UCROSS, WY

LOCATION.--Lat 44°33'09", long 106°32'06", in NE¼SW¼NE¼ sec.19, T.53 N., R.80 W., Johnson County, Hydrologic Unit 10090206, on left bank 0.5 mi (0.8 km) upstream from Sheridan-Johnson County line, 0.7 mi (1.1 km) south of Ucross, and 1.6 mi (2.6 km) upstream from Piney Creek.

DRAINAGE AREA.--409 mi² (1,059 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 4,070 ft (1,241 m), from topographic map.

REMARKS.--Records good except those for September, which are poor. Diversions above station for irrigation of about 17,700 acres (71.6 km²), of which about 200 acres (0.81 km²) lies below station. Water can be diverted during high flow into Lake De Smet and then released into Piney Creek basin, bypassing the station.

EXTREMES FOR PERIOD JUNE TO SEPTEMBER.--Maximum discharge, 645 ft³/s (18.3 m³/s) June 7, gage height, 5.90 ft (1.798 m); minimum daily, 9.7 ft³/s (0.27 m³/s) July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, JUNE TO SEPTEMBER 1976

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									369	173	11	19
2									325	286	295	16
3									364	279	312	14
4									416	219	179	13
5									471	197	130	12
6									495	183	109	12
7									536	197	81	14
8									578	183	64	22
9									456	152	47	26
10									413	130	46	24
11									335	118	49	21
12									288	122	46	18
13									219	138	39	21
14									183	126	28	18
15									207	98	23	16
16									193	85	20	14
17									215	71	17	14
18									177	64	18	14
19									153	58	18	21
20									146	38	19	36
21									193	62	18	42
22									300	57	20	42
23									385	34	22	55
24									456	27	24	81
25									288	12	24	78
26									209	9.7	24	82
27									179	32	24	85
28									153	20	28	72
29									140	12	30	66
30									145	11	18	60
31									---	12	16	---
TOTAL									8987	3205.7	1799	1028
MEAN									300	103	58.0	34.3
MAX									578	286	312	85
MIN									140	9.7	11	12
AC-FT									17830	6360	3570	2040

06320400 CLEAR CREEK AT UCROSS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1975 to September 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
NOV 11...	1445	E30	1100	8.1	1.5	2	11.8	--	540	310	130
DEC 09...	1600	E50	1070	8.0	2.0	25	9.8	2.2	440	240	100
FEB 10...	1430	E30	1010	7.5	.5	5	9.9	4.6	470	260	110
APR 13...	1400	E100	500	7.8	12.5	25	9.4	7.2	220	110	53
MAY 10...	1430	E300	460	7.9	16.5	11	9.4	6.0	190	91	45
JUN 15...	1515	213	620	8.0	14.5	10	10.1	3.4	270	160	60
JUL 13...	1600	152	570	8.0	24.0	10	9.2	3.8	230	120	54
AUG 09...	1530	47	1020	8.1	24.0	5	8.2	5.3	460	260	110
SEP 01...	0830	19	1150	8.2	15.5	1	8.7	2.0	580	340	140
06...	1330	A12	1450	8.0	20.0	2	8.8	5.1	630	360	140

A Daily mean discharge.
E Estimate.

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
NOV 11...	53	68	1.3	4.4	282	0	231	440	5.5	.2	9.2
DEC 09...	45	57	1.2	4.4	241	0	198	360	4.8	.2	9.9
FEB 10...	48	61	1.2	4.6	261	0	214	360	4.9	.2	11
APR 13...	22	27	.8	3.5	137	0	112	160	3.2	.1	8.3
MAY 10...	20	24	.7	2.8	127	0	104	140	3.3	.1	8.3
JUN 15...	29	34	.9	3.1	132	0	108	220	1.7	.2	10
JUL 13...	22	27	.8	2.6	134	0	110	170	2.1	.1	7.6
AUG 09...	45	57	1.2	4.7	241	0	198	360	4.2	.3	8.9
SEP 01...	56	73	1.3	5.7	298	0	244	480	4.7	.2	5.8
06...	68	83	1.4	7.3	329	0	270	520	5.5	.3	5.5

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)
NOV 11...	850	1.16	68.9	.01	--	.00	--	.65	--	.65
DEC 09...	700	.95	94.5	.16	--	.13	--	1.6	--	1.7
FEB 10...	729	.99	59.0	.36	--	.20	--	1.2	--	1.4
APR 13...	345	.47	93.2	.06	--	.04	--	1.4	--	1.4
MAY 10...	306	.42	248	.06	--	.25	--	1.2	--	1.4
JUN 15...	423	.58	243	.01	--	.01	--	.64	--	.65
JUL 13...	352	.48	144	.06	--	.02	--	.65	--	.67
AUG 09...	709	.96	90.0	.33	--	--	--	--	--	--
SEP 01...	913	1.24	46.8	.01	.00	.00	.05	.41	.53	.41
06...	992	1.35	32.1	.01	--	.07	--	.88	--	.95

06320400 CLEAR CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
NOV 11...	--	.66	.02	--	130	120	--	--	16	1.3
DEC 09...	--	1.9	.10	--	110	70	--	--	102	14
FEB 10...	--	1.8	.07	--	110	20	--	--	12	.97
APR 13...	--	1.5	.13	--	50	60	--	--	98	26
MAY 10...	--	1.5	.12	--	60	40	--	--	56	45
JUN 15...	--	.66	.08	--	60	30	--	--	--	--
JUL 13...	--	.73	.08	--	70	30	--	--	--	--
AUG 09...	--	--	.06	--	120	30	--	--	--	--
SEP 01...	.58	.42	.02	.01	180	20	5000	1.0	30	1.5
06...	--	.96	.02	--	170	70	--	--	--	--

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)
FEB 10...	1430	80	10	1	0	0	10	<10	2	0	0
APR 13...	1400	1000	--	1	--	0	--	<10	--	0	--
JUL 13...	1600	610	--	1	--	0	--	<10	--	0	--
SEP 01...	0830	120	0	1	0	0	0	<10	0	0	0

DATE	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
FEB 10...	<10	3	210	<100	2	20	20	80	40	.0
APR 13...	20	--	1900	<100	--	10	--	190	--	.0
JUL 13...	10	--	1500	<100	--	20	--	90	--	.0
SEP 01...	<10	1	180	<100	0	30	30	50	40	.0

DATE	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
FEB 10...	.0	0	0	<50	4	1	1	.9	20	20
APR 13...	--	2	--	50	--	1	--	--	50	--
JUL 13...	--	0	--	<50	--	0	--	--	30	--
SEP 01...	.0	1	0	<50	4	1	1	--	10	0

06320400 CLEAR CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
SEP 01...	0830	15.5	19	20	22	34	68	94	95

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	SEP 1.76
TIME	0830
TOTAL CELLS/ML	5000
DIVERSITY: DIVISION	0.9
.CLASS	0.9
..ORDER	1.2
...FAMILY	1.7
....GENUS	2.5

ORGANISM	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....OOCYSTIS	54	2
...SCENEDESMACEAE		
....ACTINASTRUM	710	15
....CRUCIGENIA	220	5
....SCENEDESMUS	2400#	48
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	110	3
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	270	6
..PENNALES		
...ACHNANTHACEAE		
....COCCONEIS	110	3
...DIATOMACEAE		
....DIATOMA	54	2
...GOMPHONEMATACEAE		
....GOMPHONEMA	54	2
...NAVICULACEAE		
....NAVICULA	380	8
...NITZSCHIACEAE		
....NITZSCHIA	650	14

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06320400 CLEAR CREEK AT UCROSS, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

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                     SEP. 1, 1976
                      0830 HOURS

              IDENTIFICATION OF PERIPHYTON

  _ORGANISM__NAME_______________   _COMMON__NAME_______

  CHLOROPHYTA                      GREEN ALGAE
  .CHLOROPHYCEAE
  ..CHLOROCOCCALES
  ...OCCYSTACEAE
O ....ANKISTRODESMUS
  ...SCENEDESMACEAE
O ....SCENEDESMUS
  ..CLADOPHORALES
  ...CLADOPHORACEAE
E ....CLADOPHORA
  ..OEDOGONIALES
  ...OEDOGONIACEAE
O ....OEDOGONIUM
  ..ZYGNEMATALES
  ...DESMIDIACEAE                  PLACODERM DESMIDS
O ....CLOSTERIUM
O ....COSMARIUM
  CHRYSOPHYTA
  .BACILLARIOPHYCEAE               DIATOMS
  ..CENTRALES                      CENTRIC
  ...COSCINODISCACEAE
O ....CYCLOTELLA
O ....MELOSIRA
  ..PENNALES                       PENNATE
  ...ACHNANTHACEAE
O ....ACHNANTHES
E ....COCCONEIS
  ...CYMBELLACEAE
O ....AMPHORA
O ....EPITHEMIA
O ....RHOPALODIA
  ...DIATOMACEAE
O ....DIATOMA
  ...FRAGILARIACEAE
O ....FRAGILARIA
O ....SYNEDRA
  ...GOMPHONEMATACEAE
O ....GOMPHONEMA
  ...NAVICULACEAE                  NAVICULOID
O ....ANOMOEONEIS
O ....GYROSIGMA
O ....NEIDIUM
O ....PINNULARIA
  ...NITZSCHIACEAE
O ....NITZSCHIA
  ...SURIRELLACEAE
O ....CYMATOPLEURA
O ....SURIRELLA
  ...ACHNANTHACEAE
E ....RHOICOSPHENIA
  CYANOPHYTA                       BLUE-GREEN ALGAE
  .MYXOPHYCEAE
  ..CHROOCOCCALES                  COCCOID
  ...CHAMAESIPHONACEAE
O ....CHAMAESIPHON
  ..OSCILLATORIALES                FILAMENTOUS
  ...OSCILLATORIACEAE
O ....LYNGBYA
  RHODOPHYTA                       RED ALGAE
  .RHODOPHYCEAE
  ..NEMALIONALES
  ...CHANTRANSICACEAE
O ....AUDOUINELLA

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
      O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
      ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE
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06320500 SOUTH PINEY CREEK AT WILLOW PARK, WY

LOCATION.--Lat 44°27'59", long 107°02'03", Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, on left bank about 300 ft (91 m) downstream from Willow Park Dam, 1.4 mi (2.3 km) upstream from Kearny Creek, and 10 mi (16 km) southwest of Story.

DRAINAGE AREA.--33.6 mi^2 (87.0 km^2).

PERIOD OF RECORD.--September 1945 to September 1957 (no winter records prior to 1948), October 1959 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1309: 1949(M). WSP 1709: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 8,540 ft (2,603 m), from topographic map. Prior to Oct. 1, 1957, at site about 600 ft (183 m) upstream at different datum. Oct. 1, 1959, to Sept. 30, 1965, at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records fair. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm^3), and Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm^3). Storage began in Willow Park Reservoir in April 1959. Cloud Peak Reservoir enlarged December 1958. Water released from storage in Cloud Peak Reservoir is diverted just below station into Rock Creek basin.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--22 years (water years 1948-57, 1960-71), 42.4 ft^3/s (1.201 m^3/s), 30,720 acre-ft/yr (37.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,620 ft^3/s (45.9 m^3/s) June 15, 1963, gage height, 5.68 ft (1.731 m), present datum, from rating curve extended above 360 ft^3/s (10.2 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.30 ft^3/s (0.008 m^3/s) Nov. 19-21, 1966, but may have been less on individual days of no gage-height record; minimum daily determined prior to construction of Willow Park Reservoir, 4.5 ft^3/s (0.13 m^3/s) Mar. 1 to Apr. 5, 1955, but may have been less during years of no winter records.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 415 ft^3/s (11.8 m^3/s) June 5, gage height, 4.12 ft (1.256 m); minimum daily during period of operation, 43 ft^3/s (1.22 m^3/s) June 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1									210	74	70	83
2									207	166	79	73
3									234	168	94	73
4									267	147	108	72
5									306	139	125	64
6									297	140	121	63
7									297	157	115	65
8									267	156	102	66
9									231	147	91	68
10									207	139	69	67
11									198	137	59	67
12									196	137	57	66
13									194	142	56	65
14									194	132	57	61
15									193	115	57	64
16									154	105	57	62
17									121	98	65	60
18									119	90	76	60
19									119	85	64	60
20									118	84	59	59
21									68	83	72	57
22									43	79	71	56
23									146	71	73	56
24									198	68	76	55
25									196	65	75	55
26									136	68	74	55
27									63	72	78	54
28									60	74	79	53
29									48	75	81	53
30									48	74	85	53
31									---	75	89	---
TOTAL									5135	3362	2434	1865
MEAN									171	108	78.5	62.2
MAX									306	168	125	83
MIN									43	65	56	53
AC-FT									10190	6670	4830	3700

06321000 SOUTH PINEY CREEK NEAR STORY, WY

LOCATION.--Lat 44°33'26", long 106°56'11", in NW¼NE¼NE¼ sec.23, T.53 N., R.84 W., Johnson County, Hydrologic Unit 10090206, Bighorn National Forest, on left bank 2.3 mi (3.7 km) southwest of Story and 3.3 mi (5.3 km) upstream from confluence with North Piney Creek.

DRAINAGE AREA.--69.4 mi^2 (179.7 km^2).

PERIOD OF RECORD.--June 1951 to September 1974 (no winter records in water years 1972-74), November 1974 to current year.

REVISED RECORDS.--WSP 1916: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,590 ft (1,704 m), from topographic map. Prior to Oct. 1, 1951, nonrecording gage at site 300 ft (91 m) upstream at different datum. Oct. 1, 1951, to July 9, 1970, at site 200 ft (61 m) downstream at datum 10.08 ft (3.072 m) lower.

REMARKS.--Records fair except those for December to March, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm^3), Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm^3), and Kearny Lake, capacity, 1,860 acre-ft (2.29 hm^3). Diversion above station into Rock Creek basin for irrigation.

AVERAGE DISCHARGE.--21 years (water years 1952-71, 1976), 75.5 ft^3/s (2,138 m^3/s), 51,700 acre-ft/yr (67.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,090 ft^3/s (59.2 m^3/s) June 15, 1963, gage height, 4.37 ft (1.332 m), site and datum then in use, from rating curve extended above 1,050 ft^3/s (29.7 m^3/s); maximum gage height, 5.30 ft (1,615 m) June 15, 1963 (backwater from slide), site and datum then in use; minimum daily discharge, 0.40 ft^3/s (0.01 m^3/s) Nov. 14, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 470 ft^3/s (13.3 m^3/s) June 10, 23, gage height, 3.43 ft (1.045 m); maximum gage height, 3.61 ft (1.100 m) Feb. 6 (backwater from ice); minimum daily discharge, 14 ft^3/s (0.40 m^3/s) Mar. 26-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	55	38	34	25	23	16	18	30	79	233	135	110
2	55	38	37	27	23	15	18	34	96	357	132	102
3	55	38	36	25	22	16	18	35	214	357	135	100
4	55	38	35	27	20	17	19	38	300	305	148	100
5	55	38	34	30	18	18	21	44	333	280	166	94
6	55	37	33	30	18	19	21	41	327	270	163	90
7	55	36	33	26	19	18	23	39	357	280	155	94
8	55	36	33	29	19	18	23	42	431	285	148	96
9	55	32	33	28	19	18	25	48	438	280	138	100
10	53	33	33	28	19	18	24	49	445	275	120	98
11	53	31	32	28	19	17	26	53	396	265	110	96
12	53	30	32	28	19	16	29	48	357	257	104	98
13	53	40	31	28	19	17	30	49	327	257	100	94
14	49	39	28	27	19	18	28	62	333	229	100	92
15	37	37	27	29	19	18	27	65	339	197	98	98
16	39	36	28	28	18	18	30	56	285	187	96	94
17	37	36	25	27	18	18	25	57	214	178	98	90
18	37	36	27	26	18	18	27	67	181	169	105	90
19	37	32	29	24	18	18	25	73	190	148	80	92
20	38	26	30	27	17	16	23	88	211	140	62	88
21	37	32	30	26	17	17	24	86	214	128	85	85
22	38	35	30	26	17	17	24	90	253	118	102	86
23	38	37	30	26	17	17	26	90	396	108	102	86
24	36	37	30	25	17	16	25	92	410	104	104	88
25	36	35	30	22	17	15	28	92	333	102	106	86
26	39	34	30	24	18	14	33	88	233	115	106	92
27	39	36	30	23	18	14	31	85	169	122	110	88
28	36	33	30	23	17	14	28	86	172	118	110	86
29	38	30	30	23	17	14	28	90	158	118	110	88
30	38	31	30	23	---	15	28	88	169	118	110	86
31	38	---	29	23	---	17	---	83	---	120	112	---
TOTAL	1394	1047	959	811	539	517	755	1988	8360	6220	3550	2787
MEAN	45.0	34.9	30.9	26.2	18.6	16.7	25.2	64.1	279	201	115	92.9
MAX	55	40	37	30	23	19	33	92	445	357	166	110
MIN	36	26	25	22	17	14	18	30	79	102	62	85
AC-FT	2760	2080	1900	1610	1070	1030	1500	3940	16580	12340	7040	5530

CAL YR 1975 TOTAL 39029 MEAN 107 MAX 1100 MIN 17 AC-FT 77410
WTR YR 1976 TOTAL 28927 MEAN 79.0 MAX 445 MIN 14 AC-FT 57380

06321020 MEAD-COFFEEN DITCH ABOVE FISH HATCHERY, NEAR STORY, WY

LOCATION.--Lat 44°33'41", long 106°55'45", in NE¼SW¼SW¼ sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, on right bank upstream from roadway, 0.3 mi (0.5 km) southwest of fish hatchery, 0.4 mi (0.6 km) downstream from intake, and 1.9 mi (3.1 km) southwest of Story.

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,510 ft (1,679 m), from topographic map.

REMARKS.--Records fair. Ditch diverts water from South Piney Creek in NW¼NE¼NE¼ sec.23, T.53 N., R.84 W.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41 ft^3/s (1.16 m^3/s) June 16, 1975, gage height, 2.26 ft (0.689 m); maximum gage height, 2.61 ft (0.796 m) Dec. 4, 1975 (backwater from ice); no flow Mar. 27 to Apr. 1, Dec. 15-18, 1975, Jan. 1-4, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 21 ft^3/s (0.59 m^3/s) Aug. 1, 4, gage height, 2.06 ft (0.628 m); maximum gage height, 2.61 ft (0.796 m) Dec. 4 (backwater from ice); no flow Dec. 15-18, Jan. 1-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.7	4.1	2.9	0	1.2	.58	.61	1.8	11	13	19	16
2	5.0	4.2	3.2	0	1.2	.55	.58	2.0	12	15	18	16
3	5.2	3.9	2.9	0	1.2	.60	.60	2.1	16	15	18	16
4	5.5	3.9	3.7	0	.90	.60	.66	2.4	16	15	19	16
5	5.7	3.9	3.9	1.6	.74	.50	.78	3.4	15	14	19	15
6	5.7	3.6	3.9	1.8	.76	.40	.90	2.9	14	14	19	15
7	5.9	3.6	3.9	1.8	.80	.50	.97	2.8	14	14	19	16
8	7.0	3.6	3.7	1.8	1.4	.50	.94	3.1	15	14	19	16
9	7.1	3.3	3.7	1.8	2.0	.50	1.1	3.7	15	14	19	16
10	7.1	2.9	3.6	1.9	1.6	.50	1.1	3.9	15	14	18	15
11	7.1	2.8	3.6	2.2	1.6	.40	1.2	4.7	15	14	18	15
12	7.1	2.0	3.5	2.2	1.5	.40	1.4	4.1	15	14	17	15
13	6.8	3.5	3.5	2.2	1.4	.40	1.5	4.5	15	14	16	15
14	6.2	3.8	.68	2.2	1.1	.40	1.3	6.5	15	13	16	15
15	4.3	3.7	0	2.2	1.0	.40	1.3	7.5	15	13	16	15
16	4.5	3.6	0	2.0	1.1	.40	1.4	5.9	15	12	16	15
17	4.2	3.7	0	1.7	1.0	.40	.59	6.2	14	12	16	15
18	4.1	3.8	0	1.7	.90	.50	1.5	8.6	13	12	16	15
19	4.1	3.1	.75	1.3	.80	.50	1.3	10	13	10	15	15
20	4.0	2.1	1.7	1.5	.60	.40	1.2	12	14	9.8	12	15
21	4.0	1.0	1.9	1.6	.60	.50	1.2	12	14	8.2	16	15
22	4.2	.50	2.1	1.5	.62	.50	1.1	13	14	7.3	17	14
23	4.1	2.0	1.9	1.4	.62	.58	1.2	13	15	6.0	17	14
24	4.2	3.0	1.8	1.3	.59	.52	1.1	13	15	5.7	17	14
25	6.6	2.8	2.2	1.3	.58	.52	1.3	11	15	4.8	17	14
26	4.5	2.5	2.2	1.2	.60	.50	1.6	12	14	6.3	17	15
27	4.4	2.7	2.3	1.1	.60	.49	1.0	12	12	7.1	17	15
28	4.7	2.9	2.3	1.4	.65	.62	1.0	12	12	6.4	17	14
29	5.6	2.9	2.4	1.3	.58	.60	1.0	12	11	6.2	17	14
30	4.4	2.9	2.3	1.3	---	.60	1.6	12	11	6.0	17	14
31	4.3	---	2.2	1.3	---	.60	---	11	---	11	16	---
TOTAL	164.3	92.30	72.73	44.6	28.24	15.46	33.03	231.1	420	340.8	529	450
MEAN	5.30	3.08	2.35	1.44	.97	.50	1.10	7.45	14.0	11.0	17.1	15.0
MAX	7.1	4.2	3.9	2.2	2.0	.62	1.6	13	16	15	19	16
MIN	4.0	.50	0	0	.58	.40	.58	1.8	11	4.8	12	14
AC-FT	326	183	144	88	56	31	66	458	833	676	1050	893

CAL YR 1975 TOTAL 1951.87 MEAN 5.35 MAX 31 MIN 0 AC-FT 3870
WTR YR 1976 TOTAL 2421.56 MEAN 6.62 MAX 19 MIN 0 AC-FT 4800

06321040 MEAD-COFFEEN DITCH BELOW FISH HATCHERY, NEAR STORY, WY

LOCATION.--Lat 44°34'07", long 106°55'23", in NE¼SE¼NW¼ sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, on right bank upstream from culvert in county road, 0.3 mi (0.5 km) northeast of fish hatchery, 1.1 mi (1.8 km) downstream from intake, and 1.4 mi (2.3 km) southwest of Story.

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,350 ft (1,631 m), from topographic map.

REMARKS.--Records fair except those for periods of no gage-height record, Oct. 8 to Nov. 7, Jan. 16 to Feb. 24, May 1-27, July 23 to Aug. 25, which are poor. Ditch diverts water from South Piney Creek in NW¼NE¼NE¼ sec.23, T.53 N., R.84 W. to supplement flow in North Piney Creek. Water can also be diverted into ditch from Spring Creek at the fish hatchery 0.3 mi (0.5 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 46 ft^3/s (1.30 m^3/s) June 16, 1975, gage height, 3.63 ft (1.106 m); minimum daily, 1.6 ft^3/s (0.045 m^3/s) Nov. 29, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, not determined; minimum daily, 2.5 ft^3/s (0.071 m^3/s), Mar. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.6	6.1	4.7	3.1	3.5	3.0	2.7	4.0	13	16	21	19
2	8.5	6.0	5.0	3.0	3.5	3.1	2.7	4.5	14	17	20	19
3	8.8	5.8	4.8	3.0	3.5	3.1	2.7	4.5	19	18	20	18
4	9.1	5.8	5.7	3.0	3.2	3.1	2.8	5.0	18	18	21	18
5	9.1	5.8	5.8	4.2	3.0	3.0	3.0	6.0	17	17	21	17
6	9.1	5.8	5.6	4.4	3.0	2.9	3.3	5.5	17	17	21	17
7	8.8	6.1	5.7	4.4	3.1	3.0	3.4	5.0	17	17	21	17
8	9.8	5.9	5.7	4.4	3.7	3.0	3.3	5.5	17	18	20	17
9	9.8	5.6	5.6	4.3	4.3	3.0	3.5	6.0	17	18	21	18
10	9.8	5.2	5.5	4.3	3.9	2.9	3.6	6.5	16	18	20	18
11	9.8	5.1	5.5	4.4	3.9	2.8	3.6	6.5	16	17	20	18
12	9.8	4.4	5.4	4.5	3.8	2.7	3.8	6.5	16	17	19	19
13	9.8	5.8	5.4	4.3	3.6	2.7	4.0	7.0	16	17	18	19
14	9.0	6.0	3.3	4.3	3.5	2.8	3.9	9.0	17	15	18	19
15	7.0	5.8	3.3	4.3	3.4	2.7	3.9	10	16	15	18	19
16	6.6	5.7	3.4	4.2	3.6	2.8	4.2	8.5	16	15	18	19
17	6.4	5.8	3.4	4.0	3.4	2.8	3.8	8.5	16	15	18	19
18	6.3	5.7	3.5	4.0	3.3	2.9	4.2	11	15	15	18	19
19	6.2	5.3	3.5	3.6	3.2	2.8	3.9	12	15	14	17	19
20	6.1	2.9	4.8	3.8	3.0	2.6	3.7	14	16	13	14	19
21	6.1	3.2	4.8	3.9	3.0	2.7	3.8	14	17	12	18	19
22	6.3	3.4	4.8	3.8	3.1	2.7	3.6	14	17	12	19	19
23	6.2	4.0	4.6	3.7	3.1	2.6	3.8	15	18	11	19	19
24	6.3	4.7	4.5	3.6	3.1	2.6	3.7	15	19	9.0	19	19
25	8.4	4.4	4.9	3.6	3.1	2.7	3.9	14	19	8.0	19	19
26	6.6	4.1	4.9	3.5	3.2	2.6	4.5	14	17	9.0	19	19
27	6.5	4.2	4.8	3.4	3.2	2.6	4.0	14	16	10	19	19
28	6.7	4.3	4.7	3.7	3.1	2.6	4.0	15	15	9.0	19	19
29	7.6	4.4	4.8	3.6	2.9	2.5	4.4	15	14	9.0	19	19
30	6.5	4.4	4.7	3.6	---	2.6	4.3	15	14	9.0	19	18
31	6.3	---	4.8	3.6	---	2.7	---	14	---	15	20	---
TOTAL	242.9	151.7	147.9	119.5	97.2	86.6	110.0	304.5	490	440.0	593	556
MEAN	7.84	5.06	4.77	3.85	3.35	2.79	3.67	9.82	16.3	14.2	19.1	18.5
MAX	9.8	6.1	5.8	4.5	4.3	3.1	4.5	15	19	18	21	19
MIN	6.1	2.9	3.3	3.0	2.9	2.5	2.7	4.0	13	8.0	14	17
AC-FT	482	301	293	237	193	172	218	604	972	873	1180	1100

CAL YR 1975 TOTAL 3285.5 MEAN 9.00 MAX 37 MIN 2.8 AC-FT 6520
WTR YR 1976 TOTAL 3339.3 MEAN 9.12 MAX 21 MIN 2.5 AC-FT 6620

06321100 SOUTH PINEY CREEK BELOW MEAD-COFFEEN DITCH, NEAR STORY, WY

LOCATION.--Lat 44°33'29", long 106°55'50", in SW¼SW¼SW¼ sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, on left bank 0.3 mi (0.5 km) downstream from intake of Mead-Coffeen ditch, 0.5 mi (0.8 km) upstream from intake of Big Piney Divide ditch, and 2.1 mi (3.4 km) southwest of Story.

DRAINAGE AREA.--69.5 mi^2 (180.0 km^2).

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,520 ft (1,682 m), from topographic map.

REMARKS.--Records good except those for November to March and those above 150 ft^3/s (4.25 m^3/s), which are poor. No gage-height record Jan. 15 to Feb. 24. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm^3), Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm^3), and Kearny Lake, capacity 1,860 acre-ft (2.29 hm^3). Diversions above station into Rock Creek basin for irrigation and by Mead-Coffeen ditch into North Piney Creek basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, not determined, about July 4, 1975; minimum daily discharge, 12 ft^3/s (0.34 m^3/s) Mar. 28, 29, 1975, Mar. 2, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 464 ft^3/s (13.1 m^3/s) June 9; gage height, 3.23 ft (0.985 m); maximum observed gage height, 3.29 ft (1.003 m) Dec. 16 (backwater from ice); minimum daily discharge, 12 ft^3/s (0.34 m^3/s) Mar. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	42	31	21	20	19	14	16	25	67	210	90	80
2	40	29	24	22	19	12	16	26	80	331	90	73
3	40	29	26	20	18	13	16	28	206	331	94	73
4	39	29	26	22	17	14	17	30	279	283	100	73
5	39	29	25	25	16	16	18	34	312	253	130	65
6	39	29	25	24	16	17	19	32	321	240	125	67
7	39	28	25	22	17	17	19	31	342	249	122	68
8	39	26	25	24	17	16	19	34	427	257	111	70
9	39	27	24	24	17	15	21	39	439	253	98	72
10	38	26	25	23	17	15	21	40	433	249	85	69
11	38	24	24	22	17	14	22	43	391	244	73	66
12	38	23	24	23	17	14	24	40	363	236	70	68
13	37	31	23	23	17	16	24	41	321	236	67	66
14	37	29	22	22	17	15	23	51	331	202	65	64
15	30	28	20	23	17	15	23	57	321	182	65	68
16	30	28	20	23	16	16	25	49	288	172	64	65
17	29	27	17	22	16	15	22	51	210	169	65	64
18	29	27	18	21	16	16	23	59	169	160	70	62
19	29	25	20	20	16	15	22	65	179	138	51	64
20	29	21	20	22	15	15	20	80	206	132	40	62
21	29	26	21	21	15	15	20	78	206	115	53	60
22	29	28	20	21	15	15	21	80	244	104	67	62
23	29	28	21	21	15	15	20	80	385	96	68	62
24	29	27	22	20	15	15	20	80	415	92	71	62
25	30	25	22	18	15	16	22	80	331	89	76	62
26	32	24	21	20	16	15	26	76	217	100	74	62
27	30	25	21	19	15	15	26	73	154	107	80	60
28	29	22	20	19	15	16	26	73	157	102	78	58
29	31	19	20	19	15	16	22	78	143	100	78	58
30	32	19	20	19	---	16	22	74	152	102	80	57
31	32	---	22	19	---	17	---	70	---	94	85	---
TOTAL	1052	789	684	663	473	471	635	1697	8089	5628	2485	1962
MEAN	33.9	26.3	22.1	21.4	16.3	15.2	21.2	54.7	270	182	80.2	65.4
MAX	42	31	26	25	19	17	26	80	439	331	130	80
MIN	29	19	17	18	15	12	16	25	[illegible]	89	40	57
AC-FT	2090	1560	1360	1320	938	934	1260	3370	16040	11160	4930	3890

CAL YR 1975 TOTAL 33545 MEAN 91.9 MAX 1070 MIN 12 AC-FT 66540
WTR YR 1976 TOTAL 24628 MEAN 67.3 MAX 439 MIN 12 AC-FT 48850

06321500 NORTH PINEY CREEK NEAR STORY, WY

LOCATION.--Lat 44°34'50", long 106°55'55", in NW¼SW¼ sec.12, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, on left bank 2.1 mi (3.4 km) west of Story and 3.2 mi (5.1 km) upstream from confluence with South Piney Creek.

DRAINAGE AREA.--36.8 mi^2 (95.3 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1951 to current year.

REVISED RECORDS.--WSP 1916: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,290 ft (1,612 m), from topographic map. Prior to Sept. 14, 1951, nonrecording gage at present site and datum.

REMARKS.--Records good. No diversion above station.

AVERAGE DISCHARGE.--25 years, 38.6 ft^3/s (1.093 m^3/s), 27,970 acre-ft/yr (34.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,820 ft^3/s (51.5 m^3/s) June 15, 1963, gage height, 5.04 ft (1.536 m), from rating curve extended above 1,000 ft^3/s (28.3 m^3/s); minimum daily, 3.0 ft^3/s (0.08 m^3/s) Mar. 12, 1956, Jan. 20, 21, 24, 25, Mar. 3, 1966.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.66 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 20	1830	*333	9.43	2.72	0.829
June 23	0330	264	7.48	2.49	.759

Minimum daily discharge, 4.8 ft^3/s (0.14 m^3/s) Mar. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.1	9.4	7.2	5.4	6.4	5.6	8.0	39	185	102	18	9.3
2	8.8	9.5	8.2	5.6	6.4	4.8	7.9	46	192	94	19	8.9
3	8.5	11	8.0	6.0	6.2	5.0	8.1	51	190	83	19	8.6
4	8.3	12	8.0	7.0	5.8	5.4	8.8	61	189	74	18	8.5
5	8.1	11	7.5	7.6	5.2	6.1	11	74	164	68	17	8.2
6	8.2	10	7.7	7.0	5.8	6.3	14	71	172	65	16	11
7	8.0	9.6	7.2	6.4	6.2	6.4	18	75	158	65	16	14
8	8.9	7.9	7.7	6.6	6.2	5.9	18	89	132	58	15	11
9	9.2	5.8	8.2	7.0	6.3	5.6	21	106	113	53	14	10
10	9.6	7.1	8.2	7.0	6.1	5.7	23	120	101	50	14	9.1
11	8.9	8.1	7.7	6.6	5.9	5.3	24	132	92	46	14	9.1
12	8.5	7.4	7.0	6.6	6.4	5.0	32	124	86	44	13	13
13	9.1	8.9	7.0	6.4	6.4	5.6	36	135	78	46	13	12
14	9.9	8.4	6.8	6.3	6.3	5.5	34	174	86	42	12	10
15	9.2	8.4	7.6	6.5	6.2	5.4	34	180	94	39	12	9.4
16	11	8.6	7.5	7.2	6.1	5.5	37	164	117	37	12	8.8
17	9.7	7.9	7.0	7.6	6.1	6.0	34	169	148	34	12	8.5
18	10	8.0	7.0	7.0	5.7	6.8	32	198	134	33	12	10
19	9.1	7.5	7.0	7.0	5.6	6.8	30	224	143	33	12	11
20	8.7	6.0	6.8	7.0	5.5	6.5	28	274	168	32	12	9.4
21	8.5	6.6	6.5	6.8	5.6	6.1	28	274	203	35	12	8.8
22	9.3	7.0	6.5	6.8	5.3	6.2	28	272	222	30	11	8.5
23	7.2	7.2	6.3	6.7	5.5	6.5	28	261	216	28	11	9.6
24	7.2	7.5	6.3	6.4	5.6	6.4	28	246	159	26	11	11
25	10	7.4	6.5	6.2	5.5	6.8	31	246	141	25	11	13
26	11	7.2	6.5	6.5	5.7	6.5	37	226	132	25	11	25
27	9.6	7.2	6.5	6.5	5.8	6.5	34	211	119	24	13	19
28	7.9	7.2	6.3	6.4	6.1	6.6	33	227	109	22	11	14
29	9.6	7.2	6.3	6.4	5.8	6.5	32	252	105	22	10	12
30	9.9	7.2	6.3	6.4	---	6.4	33	212	104	21	9.9	11
31	11	---	5.8	6.5	---	6.9	---	180	---	19	9.9	---
TOTAL	282.0	244.2	219.1	205.4	171.7	186.6	770.8	5113	4252	1375	410.8	331.7
MEAN	9.10	8.14	7.07	6.63	5.92	6.02	25.7	165	142	44.4	13.3	11.1
MAX	11	12	8.2	7.6	6.4	6.9	37	274	222	102	19	25
MIN	7.2	5.8	5.8	5.4	5.2	4.8	7.9	39	78	19	9.9	8.2
AC-FT	559	484	435	407	341	370	1530	10140	8430	2730	815	658

CAL YR 1975 TOTAL 18216.7 MEAN 49.9 MAX 505 MIN 5.6 AC-FT 36130
WTR YR 1976 TOTAL 13562.3 MEAN 37.1 MAX 274 MIN 4.8 AC-FT 26900

06321500 NORTH PINEY CREEK NEAR STORY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG 31...	0900	9.9	88	7.9	10.5	0	8.4	1.9	42	3

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
AUG 31...	12	3.0	2.9	.2	.5	48	0	39	4.4	.7

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)
AUG 31...	.1	12	59	.08	1.58	.06	.00	.00	.00	.02

DATE	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
AUG 31...	.33	.02	.33	.08	.01	.01	330	1.8	12	.32

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
AUG 31...	0900	50	10	0	0	0	0	9	<10	1	0

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
AUG 31...	0	<10	0	0	40	<100	0	0	0	0	0

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
AUG 31...	.0	.0	0	0	50	2	0	0	0	0

06321500 NORTH PINEY CREEK NEAR STORY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
AUG							
31...	0900	10.5	11	6	48	98	100

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 31,76
TIME	0900
TOTAL CELLS/ML	330
DIVERSITY: DIVISION	1.1
.CLASS	1.1
..ORDER	1.1
...FAMILY	1.8
....GENUS	2.2

ORGANISM	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..ZYGNEMATALES		
...DESMIDIACEAE		
....CLOSTERIUM	8	3
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	15	5
....COCCONEIS	84#	26
....RHOICOSPHENIA	15	5
...CYMBELLACEAE		
....AMPHORA	8	3
...GOMPHONEMATACEAE		
....GOMPHONEMA	8	3
...NAVICULACEAE		
....NAVICULA	38	12
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	150#	47

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06321500 NORTH PINEY CREEK NEAR STORY, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

AUG. 31, 1976
0900 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME_	_COMMON__NAME_
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....CLOSTERIUM	
	...ZYGNEMATACEAE	
O	....SPIROGYRA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....MELOSIRA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
E	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
O	....SYNEDRA	
	...NAVICULACEAE	NAVICULOID
O	....DIPLONEIS	
O	....FRUSTULIA	
O	....NAVICULA	
O	....PINNULARIA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHAMAESIPHONACEAE	
O	....CHAMAESIPHON	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	
O	....SPIRULINA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06321800 SPRING CREEK NEAR STORY, WY

LOCATION.--Lat 44°34'07", long 106°55'29", in NE¼SE¼NW¼ sec.13, T.53 N., R.84 W., Sheridan County, Hydrologic Unit 10090206, on right bank near upstream end of culvert in county road, 0.3 mi (0.5 km) northeast of fish hatchery, 1.4 mi (2.3 km) upstream from mouth, and 1.4 mi (2.3 km) southwest of Story.

PERIOD OF RECORD.--November 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,340 ft (1,628 m), from topographic map.

REMARKS.--Records poor. Flow of the springs at the fish hatchery, the origin of Spring Creek, are directly affected by subsurface flow from South Piney Creek and the upper reaches of Mead-Coffeen ditch. Water can be diverted from the springs into Mead-Coffeen ditch below the fish hatchery.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15 ft^3/s (0.42 m^3/s) June 16, 1975, gage height, 1.83 ft (0.558 m); maximum gage height, 2.10 ft (0.640 m) Sept. 7, 1976 (backwater from aquatic plants); minimum daily discharge, 1.1 ft^3/s (0.031 m^3/s) Mar. 12, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 14 ft^3/s (0.40 m^3/s) Sept. 7, gage height, 2.10 ft (0.640 m), backwater from aquatic plants; minimum daily, 1.1 ft^3/s (0.031 m^3/s) Mar. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	2.2	8.5	2.5	2.1	1.8	2.2	3.0	5.1	5.3	8.0	11
2	5.6	2.2	8.2	2.0	2.1	1.8	2.1	3.2	5.3	6.0	9.1	11
3	5.3	2.2	5.7	1.9	2.1	1.8	2.0	3.0	6.2	6.4	9.2	11
4	5.3	2.2	3.6	1.9	2.1	1.8	2.3	3.2	7.0	6.2	9.7	11
5	4.9	2.2	2.8	1.9	2.1	1.8	2.5	3.6	7.5	6.0	10	11
6	4.7	2.4	2.6	2.0	2.1	1.7	2.7	3.2	7.8	5.5	10	11
7	4.7	2.2	2.6	2.3	2.1	1.8	2.8	3.2	7.5	5.7	10	11
8	4.7	2.1	2.6	2.3	2.0	1.8	2.8	3.4	7.8	5.7	11	11
9	4.4	1.9	3.0	2.3	2.2	1.8	2.9	3.6	7.8	5.1	11	11
10	4.4	1.9	2.8	2.3	2.0	1.8	3.0	4.0	7.8	5.3	11	11
11	4.4	2.1	2.8	2.3	2.0	1.4	2.8	4.2	7.5	5.1	10	11
12	4.1	2.2	2.8	2.3	2.1	1.1	3.0	4.0	7.5	5.3	10	11
13	3.9	2.8	2.6	2.3	1.9	1.2	3.1	4.0	7.2	5.7	9.9	11
14	3.9	2.4	2.8	2.3	1.9	1.3	3.1	4.0	8.2	6.4	9.8	11
15	3.0	2.4	4.1	2.3	1.9	1.2	3.1	4.6	7.5	5.7	9.7	11
16	3.6	2.4	4.7	2.3	1.8	1.2	3.8	4.1	7.5	5.7	9.7	11
17	3.9	2.2	4.4	2.3	1.8	1.2	3.9	3.9	7.2	5.5	9.7	11
18	3.9	2.4	5.5	2.3	1.8	1.7	3.4	4.3	6.2	5.5	10	11
19	3.9	2.1	5.1	2.2	1.7	1.8	3.2	4.7	6.0	5.1	9.5	11
20	3.9	1.8	4.9	2.2	1.8	1.7	3.0	4.8	5.3	5.1	7.7	10
21	3.9	2.4	4.4	2.1	1.7	1.7	3.1	5.1	5.5	4.7	8.4	10
22	3.9	3.9	4.7	2.1	1.8	1.7	2.9	5.2	5.5	4.7	9.9	9.9
23	3.9	4.7	4.4	2.2	1.8	1.8	2.8	5.1	6.4	4.1	11	9.9
24	3.6	5.5	3.9	2.1	1.8	1.8	2.8	5.2	6.7	4.0	11	9.9
25	3.4	6.0	3.2	1.9	1.8	1.8	3.0	5.4	7.0	4.4	11	10
26	3.6	5.5	2.8	2.0	1.8	1.8	3.5	5.2	6.0	4.6	11	10
27	3.4	6.7	2.8	2.4	1.8	1.8	3.2	5.1	5.1	4.8	11	10
28	3.2	7.0	2.6	2.3	1.8	1.8	3.4	5.1	4.9	4.6	11	9.9
29	3.2	7.0	2.6	2.1	1.8	1.7	3.1	5.1	4.9	5.1	11	9.8
30	3.0	8.0	2.6	2.1	---	1.8	2.9	5.3	4.9	5.1	11	9.7
31	2.6	---	2.6	2.0	---	2.1	---	5.1	---	5.5	11	---
TOTAL	125.9	101.0	118.7	67.5	55.7	51.5	88.4	132.9	196.8	163.9	312.3	318.1
MEAN	4.06	3.37	3.83	2.18	1.92	1.66	2.95	4.29	6.56	5.29	10.1	10.6
MAX	5.7	8.0	8.5	2.5	2.2	2.1	3.9	5.4	8.2	6.4	11	11
MIN	2.6	1.8	2.6	1.9	1.7	1.1	2.0	3.0	4.9	4.0	7.7	9.7
AC-FT	250	200	235	134	110	102	175	264	390	325	619	631

CAL YR 1975 TOTAL 1791.4 MEAN 4.91 MAX 14 MIN 1.8 AC-FT 3550
WTR YR 1976 TOTAL 1732.7 MEAN 4.73 MAX 11 MIN 1.1 AC-FT 3440

06323000 PINEY CREEK AT KEARNY, WY

LOCATION.--Lat 44°32'08", long 106°49'18", in NE¼NE¼SW¼ sec.26, T.53 N., R.83 W., Johnson County, Hydrologic Unit 10090206, on right bank at Kearny, 300 ft (91 m) northeast of Historical Monument and 2.0 mi (3.2 km) upstream from Little Piney Creek.

DRAINAGE AREA.--118 mi² (306 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1902 to June 1906, June to August 1910, May 1911 to July 1917, May 1919 to September 1923 (no winter records), October 1940 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1176: 1944. WSP 1309: 1913(M). WSP 1509: 1906, 1920(M), 1941(M), 1942, 1943(M). WSP 1916: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,655.11 ft (1,418.878 m) above mean sea level. Sept. 6, 1902, to June 30, 1906, nonrecording gage at site 50 ft (15 m) upstream at different datum. May 14, 1911, to July 31, 1917, and May 1, 1919, to Sept. 30, 1923, nonrecording gage at site 50 ft (15 m) upstream at present datum.

REMARKS.--Records fair except those for winter period, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm³), Willow Park Reservoir, capacity, 4,457 acre-ft (55.0 hm³), and Kearny Lake, capacity, 1,860 acre-ft (2.29 hm³). Diversion above station from South Piney Creek into Rock Creek basin for irrigation. Diversions above station for irrigation of about 240 acres (97 hm²), of which about 90 acres (36 hm²) lies below station. Record includes flow in bypass channel (Spring Creek), 300 ft (91 m) left of main channel.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--36 years (water years 1941-76), 87.3 ft³/s (2.472 m³/s), 63,250 acre-ft/yr (78.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,410 ft³/s (96.6 m³/s) June 15, 1963, gage height, 6.05 ft (1.844 m), from rating curve extended above 1,800 ft³/s (51.0 m³/s); minimum daily, 2.0 ft³/s (0.06 m³/s) Oct. 10, 1922.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 586 ft³/s (16.6 m³/s) June 23, gage height, 3.55 ft (1.082 m); minimum daily, 7.0 ft³/s (0.20 m³/s) Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21	37	52	37	42	32	40	130	200	212	21	11
2	20	38	56	35	41	31	40	110	206	356	55	9.1
3	19	37	58	36	38	33	38	120	320	348	36	8.8
4	19	39	56	42	35	34	41	120	400	276	30	8.0
5	19	37	54	42	34	33	44	132	388	243	55	7.4
6	19	36	47	40	36	33	48	127	408	215	51	7.4
7	19	35	46	39	37	33	52	119	416	215	46	9.4
8	23	34	48	43	38	34	51	132	480	197	38	9.1
9	30	31	47	45	39	35	54	158	460	189	30	10
10	30	34	47	47	39	36	56	175	430	175	24	9.8
11	28	35	46	46	38	35	55	189	376	168	15	9.1
12	28	34	44	45	40	34	61	162	332	158	14	9.4
13	30	38	40	43	42	36	68	165	296	158	12	13
14	27	35	36	44	43	37	66	221	376	132	11	12
15	21	35	37	47	42	34	64	265	352	101	10	11
16	23	34	37	48	39	34	86	221	328	92	10	10
17	20	34	36	48	36	35	82	209	328	75	10	9.4
18	19	34	38	46	35	39	72	243	249	71	13	9.4
19	18	33	39	42	35	38	66	300	246	62	10	10
20	17	32	40	42	33	35	59	380	348	61	7.0	9.8
21	17	36	39	43	34	35	62	384	408	40	7.7	9.1
22	25	42	39	43	34	35	58	388	420	25	11	8.8
23	40	44	38	41	35	37	60	372	556	20	11	8.8
24	37	47	40	39	35	36	56	344	515	17	13	9.1
25	39	46	40	38	35	38	60	344	412	16	13	11
26	42	44	41	40	36	36	80	320	286	23	10	31
27	42	44	42	41	37	36	80	286	186	32	12	30
28	36	42	40	41	35	37	68	272	175	28	13	17
29	39	40	39	40	34	35	90	316	152	27	10	13
30	40	39	42	39	---	37	140	268	152	23	10	11
31	40	---	40	39	---	37	---	221	---	22	11	---
TOTAL	847	1126	1344	1301	1077	1090	1897	7193	10201	3777	619.7	341.9
MEAN	27.3	37.5	43.4	42.0	37.1	35.2	63.2	232	340	122	20.0	11.4
MAX	42	47	58	48	43	39	140	388	556	356	55	31
MIN	17	31	36	35	33	31	38	110	152	16	7.0	7.4
AC-FT	1680	2230	2670	2580	2140	2160	3760	14270	20230	7490	1230	678

CAL YR 1975 TOTAL 45614.4 MEAN 125 MAX 1140 MIN 3.5 AC-FT 90480
WTR YR 1976 TOTAL 30814.6 MEAN 84.2 MAX 556 MIN 7.0 AC-FT 61120

06323000 PINEY CREEK AT KEARNY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1951, August 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG 31...	1130	12	138	8.0	16.5	0	8.3	1.5	66	8

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
AUG 31...	18	5.1	2.0	.1	.7	71	0	58	6.7	.5

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)
AUG 31...	.1	5.8	74	.10	2.40	.02	.00	.00	.00	.15

DATE	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
AUG 31...	.26	.15	.26	.17	.02	.01	3700	5.3	27	.87

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
AUG 31...	1130	90	0	0	0	0	10	10	<10	0	10

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
AUG 31...	0	10	0	60	20	<100	0	10	0	0	10

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
AUG 31...	.0	.0	0	0	<50	2	0	0	0	0

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
AUG 31...	1130	16.5	11	32	98

06323000 PINEY CREEK AT KEARNY, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 31.76
TIME	1130
TOTAL CELLS/ML	3700
DIVERSITY: DIVISION	1.4
.CLASS	1.4
..ORDER	1.7
...FAMILY	2.5
....GENUS	2.6

ORGANISM	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	27	1
....SELENASTRUM	190	6
..VOLVOCALES		
...VOLVOCACEAE		
....GONIUM	220	6
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	110	3
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	54	2
....COCCONEIS	240	7
...DIATOMACEAE		
....DIATOMA	54	2
...FRAGILARIACEAE		
....ASTERIONELLA	190	6
...GOMPHONEMATACEAE		
....GOMPHONEMA	110	3
...NAVICULACEAE		
....NAVICULA	300	8
...NITZSCHIACEAE		
....NITZSCHIA	220	6
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	27	1
..OSCILLATORIALES		
...NOSTOCACEAE		
....ANABAENA	2000#	53
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....TRACHELOMONAS	27	1

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06323000 PINEY CREEK AT KEARNY, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

AUG. 31, 1976
1130 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME	_COMMON__NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...OCCYSTACEAE	
O	....ANKISTRODESMUS	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....COSMARIUM	
O	....SPONDYLOSIUM	
O	....STAURASTRUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
O	....MELOSIRA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
E	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....EPITHEMIA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
O	....ASTERIONELLA	
O	....FRAGILARIA	
O	....HANNAEA	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...MERIDIONACEAE	
O	....MERIDION	
	...NAVICULACEAE	NAVICULOID
O	....FRUSTULIA	
E	....NAVICULA	
O	....PINNULARIA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....CYMATOPLEURA	
O	....SURIRELLA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHROOCOCCACEAE	
O	....ANACYSTIS	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
	...OSCILLATORIACEAE	
O	....LYNGBYA	
O	....OSCILLATORIA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06323500 PINEY CREEK AT UCROSS, WY

LOCATION.--Lat 44°33'45", long 106°32'25", in SW¼NW¼SE¼ sec.18, T.53 N., R.80 W., Sheridan County, Hydrologic Unit 10090206, on left bank at Ucross, 140 ft (43 m) upstream from bridge on U.S. Highways 14 and 16, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--267 mi^2 (692 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1917 to September 1923 (no winter record), January 1950 to current year.

REVISED RECORDS.--WSP 1176: Drainage area. WSP 1439: 1952.

GAGE.--Water-stage recorder. Datum of gage is 4,066.83 ft (1,239.570 m) above mean sea level. May 1917 to Sept. 29, 1923, nonrecording gage and Sept. 30, 1923 to May 5, 1976, water-stage recorder, at site 140 ft (43 m) upstream at present datum.

REMARKS.--Records poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm^3), Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm^3), Kearny Lake, capacity, 1,860 acre-ft (2.29 hm^3), and Lake De Smet, capacity, 135,500 acre-ft (167 hm^3). Diversion above station from South Piney Creek into Rock Creek basin for irrigation. Diversions for irrigation of about 9,800 acres (39.7 km^2) above station.

AVERAGE DISCHARGE.--26 years (water years 1951-76), 88.4 ft^3/s (2.503 m^3/s), 64,050 acre-ft/yr (79.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,570 ft^3/s (101 m^3/s) June 16, 1963, gage height, 7.33 ft (2.234 m); minimum daily, 0.60 ft^3/s (0.017 m^3/s) Oct. 12-26, 1955, Sept. 28, Oct. 1, 2, 1956.

EXTREMES OUTSIDE OF PERIOD OF RECORD.--Maximum stage known, 10.9 ft (3.32 m), present datum, June 1, 1929, from information by local resident. Stage may have been affected by backwater from bridge.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 582 ft^3/s (16.5 m^3/s) June 24, gage height, 4.10 ft (1.250 m); minimum daily, 19 ft^3/s (0.54 m^3/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	177	36	32	53	45	62	197	190	193	82	32
2	46	177	44	32	51	41	67	189	172	290	122	34
3	39	177	51	33	49	41	56	186	236	347	120	38
4	37	180	54	36	44	42	59	189	344	287	107	41
5	37	177	52	39	39	41	62	194	322	242	120	40
6	38	166	49	36	40	44	67	172	361	195	135	39
7	34	163	49	33	44	47	75	164	364	182	128	40
8	37	155	48	36	51	49	79	170	400	180	108	40
9	48	138	48	40	61	52	79	195	400	170	97	45
10	54	127	48	41	54	56	81	218	386	160	101	46
11	61	127	46	39	48	52	81	248	336	153	80	42
12	56	113	43	39	49	46	81	233	305	139	62	38
13	59	124	41	39	54	50	94	221	275	139	49	36
14	61	69	35	39	52	47	94	254	361	118	39	33
15	61	64	36	43	55	47	91	336	417	87	33	35
16	62	64	36	48	53	49	111	287	358	67	27	34
17	62	64	34	48	51	55	169	281	364	59	23	33
18	59	62	37	46	51	62	127	281	312	47	19	33
19	59	59	38	45	49	63	111	333	290	39	22	27
20	56	43	37	45	48	61	99	389	344	36	25	28
21	50	46	37	48	49	68	101	420	403	78	27	22
22	56	47	37	49	52	73	96	428	414	63	28	20
23	66	49	36	48	56	85	94	400	529	60	30	24
24	111	52	36	46	56	87	99	382	560	58	33	24
25	144	50	37	42	56	77	99	350	484	66	35	26
26	152	46	37	42	54	69	127	336	375	84	36	34
27	163	43	38	45	51	69	177	293	251	103	37	67
28	172	38	37	49	48	64	155	257	215	103	36	54
29	144	34	35	52	46	57	161	278	193	101	33	44
30	217	30	38	48	---	56	172	284	180	97	29	43
31	214	---	35	51	---	57	---	227	---	85	30	---
TOTAL	2511	2861	1265	1309	1464	1752	3026	8392	10141	4028	1853	1092
MEAN	81.0	95.4	40.8	42.2	50.5	56.5	101	271	338	130	59.8	36.4
MAX	217	180	54	52	61	87	177	428	560	347	135	67
MIN	34	30	34	32	39	41	56	164	172	36	19	20
AC-FT	4980	5670	2510	2600	2900	3480	6000	16650	20110	7990	3680	2170

CAL YR 1975 TOTAL 54550 MEAN 149 MAX 1020 MIN 11 AC-FT 108200
WTR YR 1976 TOTAL 39694 MEAN 108 MAX 560 MIN 19 AC-FT 78730

06323500 PINEY CREEK AT UCROSS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT											
03...	1645	38	620	8.1	16.0	1	9.6	--	B20	270	94
NOV											
11...	1330	127	720	8.1	2.5	1	11.6	--	B4	270	100
DEC											
09...	1430	A48	360	7.9	2.0	1	10.6	--	B11	150	38
JAN											
13...	1230	A39	380	7.4	.5	1	10.8	--	B130	150	36
FEB											
10...	1300	A54	360	7.3	.5	1	11.1	--	42	150	28
MAR											
11...	1230	A52	450	7.7	.5	3	11.2	--	18	190	49
APR											
13...	1500	101	380	8.1	13.0	2	10.2	--	47	140	15
MAY											
10...	1330	264	210	7.8	15.0	9	9.2	--	120	87	6
JUN											
15...	1430	406	220	7.9	12.0	15	10.2	--	B350	84	14
JUL											
13...	1500	180	190	8.1	22.5	1	9.0	--	210	72	9
AUG											
09...	1430	106	650	8.3	23.0	1	8.3	--	42	260	110
SEP											
01...	1100	A32	800	8.5	15.0	1	10.4	2.3	--	340	150
06...	1510	36	900	8.3	20.5	2	8.6	--	92	350	160

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT											
03...	57	30	37	1.0	4.9	209	0	171	180	2.6	.2
NOV											
11...	60	28	50	1.3	5.4	200	0	164	220	3.1	.2
DEC											
09...	36	15	15	.5	2.2	139	0	114	59	1.6	.1
JAN											
13...	38	14	14	.5	2.5	142	0	116	64	1.1	.2
FEB											
10...	36	14	15	.5	2.3	146	0	120	49	1.9	.1
MAR											
11...	44	19	24	.8	3.7	170	0	139	88	2.8	.1
APR											
13...	34	13	13	.5	2.5	150	0	123	44	1.9	.1
MAY											
10...	22	7.9	7.5	.4	2.0	99	0	81	24	1.4	.1
JUN											
15...	20	9.3	11	.5	2.1	85	0	70	34	1.5	.1
JUL											
13...	18	6.5	7.9	.4	2.0	76	0	62	26	1.4	.1
AUG											
09...	61	27	40	1.1	6.0	182	0	149	190	3.9	.2
SEP											
01...	75	38	51	1.2	6.7	235	0	193	240	3.5	.2
06...	73	40	58	1.4	7.7	224	0	184	290	4.2	.3

06323500 PINEY CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)
OCT											
03...	3.4	418	.57	42.9	.01	--	.00	--	.37	--	.37
NOV											
11...	5.0	470	.64	161	.00	--	.00	--	.66	--	.66
DEC											
09...	8.3	206	.28	26.7	.02	--	.04	--	.17	--	.21
JAN											
13...	9.8	214	.29	22.5	.15	--	.02	--	.44	--	.46
FEB											
10...	9.5	200	.27	29.2	.15	--	.04	--	.24	--	.28
MAR											
11...	9.4	275	.37	38.6	.12	--	.04	--	.57	--	.61
APR											
13...	7.7	190	.26	51.8	.06	--	.05	--	.72	--	.77
MAY											
10...	8.4	122	.17	87.0	.03	--	.09	--	.87	--	.96
JUN											
15...	7.6	127	.17	139	.20	--	.01	--	.32	--	.33
JUL											
13...	5.9	105	.14	51.0	.04	--	.00	--	.67	--	.67
AUG											
09...	4.3	422	.57	123	.02	--	.02	--	1.3	--	1.3
SEP											
01...	3.9	534	.73	46.1	.01	.00	.00	.00	.32	.59	.32
06...	2.7	586	.80	57.0	.03	--	.15	--	.85	--	1.0

DATE	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT											
03...	--	.38	.02	--	70	10	6.6	--	--	--	--
NOV											
11...	--	.66	.00	--	60	60	--	--	--	--	--
DEC											
09...	--	.23	.00	--	30	60	--	--	--	--	--
JAN											
13...	--	.61	.02	--	40	20	3.6	--	--	--	--
FEB											
10...	--	.43	.02	--	20	0	--	--	--	--	--
MAR											
11...	--	.73	.06	--	30	20	--	--	--	--	--
APR											
13...	--	.83	.02	--	20	10	3.2	--	--	--	--
MAY											
10...	--	.99	.16	--	20	80	--	--	--	--	--
JUN											
15...	--	.53	.07	--	30	70	--	--	--	--	--
JUL											
13...	--	.71	.05	--	20	60	4.9	--	--	--	--
AUG											
09...	--	1.3	.02	--	60	20	--	--	--	--	--
SEP											
01...	.59	.33	.02	.01	90	10	--	2300	2.5	20	1.7
06...	--	1.0	.04	--	80	60	--	--	--	--	--

06323500 PINEY CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	SUS-PENDED ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	SUS-PENDED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)
OCT 03...	1645	110	100	10	0	0	0	<10	0	<10	0	0
JAN 13...	1230	70	70	0	3	2	1	0	0	0	<10	<9
APR 13...	1500	140	140	0	0	0	0	0	0	0	<10	<8
JUL 13...	1500	250	220	30	0	0	0	0	0	0	<10	<9
SEP 01...	1100	120	--	0	10	--	6	0	--	0	<10	--

DATE	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)
OCT 03...	0	10	0	10	10	9	1	140	0	0	0
JAN 13...	1	0	0	0	<10	<7	3	20	<100	<99	1
APR 13...	2	0	0	0	10	6	4	330	<100	<98	2
JUL 13...	1	0	0	0	20	10	10	500	<100	<98	2
SEP 01...	0	0	--	0	<10	--	0	290	<100	--	0

DATE	TOTAL LITHIUM (LI) (UG/L)	SUS-PENDED LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	SUS-PENDED MOLYB-DENUM (MO) (UG/L)
OCT 03...	10	0	10	40	30	10	.0	.0	.0	2	1
JAN 13...	7	7	0	10	5	5	.0	.0	.0	0	0
APR 13...	10	0	10	40	20	20	.0	.0	.0	1	1
JUL 13...	5	5	0	30	20	10	.0	.0	.0	0	0
SEP 01...	20	--	20	20	--	10	.0	--	.0	1	--

DATE	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	SUS-PENDED NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT 03...	1	<50	<50	0	0	0	0	1.3	10	0	10
JAN 13...	0	<50	<49	1	0	0	0	.4	10	4	6
APR 13...	0	<50	<48	2	0	0	0	.8	50	30	20
JUL 13...	0	<50	<50	0	0	0	0	.0	60	20	40
SEP 01...	1	<50	--	0	1	--	1	--	0	--	0

06323500 PINEY CREEK AT UCROSS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP							
01...	1100	15.0	35	10	17	62	100

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	SEP 1.76
TIME	1100
TOTAL CELLS/ML	2300
DIVERSITY: DIVISION	1.3
.CLASS	1.4
..ORDER	1.6
...FAMILY	2.7
....GENUS	3.0

ORGANISM	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	23	2
...SCENEDESMACEAE		
....CRUCIGENIA	*	0
....SCENEDESMUS	94	5
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	23	2
...VOLVOCACEAE		
....PANDORINA	94	5
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	23	2
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	94	5
....COCCONEIS	370#	17
....RHOICOSPHENIA	47	3
...CYMBELLACEAE		
....AMPHORA	47	3
...FRAGILARIACEAE		
....SYNEDRA	330	15
...NAVICULACEAE		
....NAVICULA	140	7
....PINNULARIA	23	2
...NITZSCHIACEAE		
....NITZSCHIA	[illegible]	7
.CHRYSOPHYCEAE		
..CHRYSOMONADALES		
...MALLOMONADACEAE		
....MALLOMONAS	23	2
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....LYNGBYA	820#	36

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM. MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06323500 PINEY CREEK AT UCROSS, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

SEP. 1, 1976
1100 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...HYDRODICTYACEAE	
O	....PEDIASTRUM	
	...OOCYSTACEAE	
O	....ANKISTRODESMUS	
O	....TETRAEDRON	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
E	....CLADOPHORA	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....CLOSTERIUM	
O	....COSMARIUM	
	...ZYGNEMATACEAE	
O	....MOUGEOTIA	
E	....SPIROGYRA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
O	....MELOSIRA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
E	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
E	....EPITHEMIA	
O	....RHOPALODIA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....ANOMOEONEIS	
O	....CALONEIS	
O	....DIPLONEIS	
O	....GYROSIGMA	
O	....NAVICULA	
O	....NEIDIUM	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...SURIRELLACEAE	
O	....CYMATOPLEURA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHAMAESIPHONACEAE	
O	....CHAMAESIPHON	
	...CHROOCOCCACEAE	
O	....AGMENELLUM	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
	...OSCILLATORIACEAE	
O	....LYNGBYA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....EUGLENA	

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06324000 CLEAR CREEK NEAR ARVADA, WY

LOCATION.--Lat 44°52'18", long 106°04'56", in SE¼ sec.36, T.57 N., R.77 W., Sheridan County, Hydrologic Unit 10090206, on right bank 600 ft (183 m) downstream from Cabin Creek, 1.8 mi (2.9 km) upstream from mouth, and 16 mi (26 km) north of Arvada.

DRAINAGE AREA.--1,110 mi^2 (2,875 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1915 to April 1919 and April 1928 to May 1929 (no winter records), September 1939 to current year.

REVISED RECORDS.--WSP 1309: 1928(M).

GAGE.--Water-stage recorder. Datum of gage is 3,506.51 ft (1,068.784 m) above mean sea level. July 21, 1915, to Apr. 30, 1919, nonrecording gage at same site at different datum. Apr. 15, 1928, to May 26, 1929, nonrecording gage at site 0.2 mi (0.3 km) upstream at different datum. Sept. 13, 1939, to Jan. 14, 1951, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Some regulation by Cloud Peak Reservoir, capacity, 3,385 acre-ft (4.17 hm^3), Willow Park Reservoir, capacity, 4,457 acre-ft (5.50 hm^3), Kearny Lake, capacity, 1,860 acre-ft (2.29 hm^3) and Lake De Smet, capacity, 135,500 acre-ft (167 hm^3). Diversions for irrigation of about 35,000 acres (142 km^2) above station. Diversion to Kendrick canal about 4.5 mi (7.2 km) upstream.

AVERAGE DISCHARGE.--37 years (water years 1940-76), 183 ft^3/s (5.183 m^3/s), 132,600 acre-ft/yr (163 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,600 ft^3/s (272 m^3/s) Aug. 5, 1954, gage height, 10.45 ft (3.185 m), from rating curve extended above 2,500 ft^3/s (70.8 m^3/s) on basis of slope-area measurement at gage height 10.17 ft (3.100 m); no flow July 22, 1954, May 8-29, Sept. 6-9, 1960, July 5, Aug. 26-28, Aug. 31 to Sept. 6, 1961, Aug. 7-10, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft^3/s (28.6 m^3/s) June 25, gage height, 4.16 ft (1.268 m); minimum daily, 12 ft^3/s (0.34 m^3/s) Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	61	271	85	71	94	110	137	286	362	317	31	15
2	66	235	120	60	96	130	139	341	401	378	30	13
3	64	226	147	55	91	124	165	299	383	581	255	12
4	55	226	172	59	80	105	153	261	496	566	305	13
5	53	226	180	63	71	91	132	204	638	452	221	17
6	53	224	158	56	68	99	137	286	656	386	194	18
7	56	215	170	47	74	107	144	390	706	374	183	22
8	69	212	180	51	81	112	153	229	772	346	153	22
9	73	204	183	57	95	118	156	369	787	321	121	25
10	74	194	174	61	90	128	156	369	679	276	113	27
11	78	170	141	65	94	145	158	348	625	247	105	36
12	89	161	124	66	99	159	163	379	548	215	80	36
13	91	156	103	66	107	141	181	441	476	213	58	38
14	91	150	86	65	112	128	226	408	443	226	47	34
15	99	153	91	71	120	126	215	595	458	194	36	35
16	101	135	87	79	131	130	202	629	483	136	26	42
17	103	130	74	85	123	137	215	488	516	103	20	34
18	107	128	82	83	117	145	267	472	543	80	17	36
19	97	126	84	79	117	154	210	520	433	67	15	33
20	95	110	90	82	110	162	186	634	412	53	16	34
21	97	84	96	84	105	167	170	725	467	42	17	39
22	95	88	97	85	108	170	153	763	559	38	20	49
23	101	93	96	81	110	170	149	856	706	69	16	47
24	113	95	95	73	113	165	142	856	890	35	17	47
25	149	92	97	66	120	165	139	796	931	25	20	66
26	188	82	99	62	118	156	146	729	674	20	18	99
27	196	85	103	70	115	146	202	674	522	19	24	124
28	215	79	100	74	110	146	318	536	417	26	26	149
29	235	73	94	80	104	146	258	386	362	58	26	132
30	196	65	99	83	---	135	258	376	321	39	29	115
31	258	---	86	85	---	126	---	365	---	36	25	---
TOTAL	3418	4488	3593	2164	2973	4243	5430	15010	16666	5938	2264	1409
MEAN	110	150	116	69.8	103	137	181	484	556	192	73.0	47.0
MAX	258	271	183	85	131	170	318	856	931	581	305	149
MIN	53	65	74	47	68	91	132	204	321	19	15	12
AC-FT	6780	8900	7130	4290	5900	8420	10770	29770	33060	11780	4490	2790

CAL YR 1975 TOTAL 98618 MEAN 270 MAX 1940 MIN 10 AC-FT 195600
WTR YR 1976 TOTAL 67596 MEAN 185 MAX 931 MIN 12 AC-FT 134100

06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1949-54, 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT											
03...	1430	52	1350	8.1	15.0	4	10.4	1.4	40	570	350
NOV											
07...	1235	215	980	8.2	6.0	7	11.5	2.2	810	420	230
DEC											
05...	1200	A180	1000	7.9	1.0	5	11.6	1.9	--	390	200
FEB											
06...	1200	A68	560	8.0	.0	10	8.9	2.1	--	430	230
MAR											
07...	1215	A107	1380	8.1	.5	6	12.8	2.5	--	560	330
APR											
09...	1215	158	1080	8.2	12.0	10	11.4	2.4	--	410	220
MAY											
07...	1215	386	840	7.9	12.0	50	9.7	3.5	--	300	170
JUN											
12...	1145	552	340	7.8	16.5	50	8.3	2.2	--	130	56
29...	1330	362	--	--	20.5	--	--	--	--	230	120
JUL											
10...	1330	274	520	8.2	26.0	20	8.6	2.8	--	220	110
28...	1430	28	--	--	25.5	--	--	--	--	610	400
AUG											
06...	1230	183	900	8.0	21.0	100	8.1	3.8	--	360	200
SEP											
01...	1300	15	1680	8.4	21.0	1	7.7	2.0	--	760	580
03...	1245	11	1850	8.0	20.0	9	8.3	2.6	--	720	490

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT											
03...	120	65	94	1.7	6.5	270	0	221	560	4.3	.5
NOV											
07...	100	41	59	1.3	4.7	230	0	189	350	5.3	.4
DEC											
05...	87	42	51	1.1	3.5	230	0	189	310	4.9	.4
FEB											
06...	100	45	63	1.3	4.2	240	0	197	380	4.2	.4
MAR											
07...	130	57	79	1.5	4.4	280	3	235	510	5.2	.5
APR											
09...	95	43	58	1.2	3.7	220	9	195	350	2.4	.4
MAY											
07...	68	31	44	1.1	3.3	160	0	131	250	4.0	.3
JUN											
12...	31	13	15	.6	1.9	90	0	74	86	1.9	.2
29...	51	25	29	.8	2.8	140	0	115	170	1.9	.2
JUL											
10...	54	22	23	.7	1.9	130	0	107	160	1.9	.3
28...	130	68	110	1.9	6.5	260	0	213	630	3.7	.5
AUG											
06...	81	38	47	1.1	4.0	200	0	164	290	1.9	.4
SEP											
01...	170	81	130	2.1	9.0	221	0	181	830	4.9	.2
03...	140	89	130	2.1	7.9	280	0	230	740	3.6	.7

YELLOWSTONE RIVER BASIN
06324000 CLEAR CREEK NEAR ARVADA, WY--Continued
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	SUS-PENDED SOLIDS (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)
OCT											
03...	3.5	987	1.34	139	16	.07	.05	--	.01	--	.67
NOV											
07...	4.3	679	.92	394	12	.02	.04	--	.04	--	.55
DEC											
05...	8.9	624	.85	303	3	.16	.21	--	.05	--	.42
FEB											
06...	9.4	722	.98	133	16	.38	.55	--	.05	--	.82
MAR											
07...	8.7	931	1.27	269	6	.36	.44	--	.00	--	.49
APR											
09...	4.9	675	.92	288	12	.05	.06	--	.04	--	.63
MAY											
07...	9.0	494	.67	515	130	.23	.06	--	.11	--	1.5
JUN											
12...	7.2	201	.27	300	61	.14	.16	--	.10	--	.68
29...	8.7	360	.49	352	--	.00	--	--	--	--	--
JUL											
10...	5.1	334	.45	247	39	.14	.13	--	.00	--	.26
28...	1.4	1080	1.47	81.6	--	.79	--	--	--	--	--
AUG											
06...	9.4	568	.77	281	174	.47	.13	--	.03	--	.96
SEP											
01...	2.7	1340	1.82	54.3	--	--	.01	.00	.00	.00	.57
03...	2.5	1260	1.71	37.4	0	1.4	.08	--	.00	--	.70

DATE	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	TOTAL BORON (B) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
OCT										
03...	--	.68	--	.73	.00	--	210	7.0	--	--
NOV										
07...	--	.59	--	.63	.01	--	--	--	--	--
DEC										
05...	--	.47	--	.68	.01	--	--	--	--	--
FEB										
06...	--	.87	--	1.4	.02	--	90	6.5	--	--
MAR										
07...	--	.49	--	.93	.02	--	160	--	--	--
APR										
09...	--	.67	--	.73	.03	--	90	14	--	--
MAY										
07...	--	1.6	--	1.7	.06	--	930	--	--	--
JUN										
12...	--	.78	--	.94	.06	--	30	--	--	--
29...	--	--	--	--	.05	--	--	--	--	--
JUL										
10...	--	.26	--	.39	.06	--	90	5.7	--	--
28...	--	--	--	--	.05	--	--	--	--	--
AUG										
06...	--	.99	--	1.1	.09	--	330	--	--	--
SEP										
01...	.43	.57	.43	.58	.02	.00	--	--	6700	.2
03...	--	.70	--	.78	.02	--	230	--	--	--

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	SUS-PENDED ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	SUS-PENDED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)
OCT												
03...	1430	110	100	10	0	0	0	<10	0	10	--	0
FEB												
06...	1200	270	270	0	0	0	1	10	10	0	--	<10
APR												
09...	1215	170	170	0	2	1	1	0	0	10	--	<10
JUL												
10...	1330	710	680	30	2	2	0	0	0	0	--	<10
SEP												
01...	1300	250	--	10	1	--	1	0	--	0	210	<10

DATE	SUS-PENDED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)
OCT												
03...	0	0	10	0	10	10	9	1	190	20	0	0
FEB												
06...	<9	1	0	0	0	<10	<9	1	610	30	<100	<98
APR												
09...	<9	1	10	10	0	10	10	0	350	10	<100	<98
JUL												
10...	<10	0	0	0	0	10	7	3	1200	40	<100	<98
SEP												
01...	--	1	0	--	0	<10	--	1	430	70	100	--

06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	SUS-PENDED LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	SUS-PENDED MOLYB-DENUM (MO) (UG/L)
OCT 03...	0	20	0	20	20	0	20	.0	.0	.0	2	1
FEB 06...	2	20	10	10	90	70	20	.0	.0	.0	1	1
APR 09...	2	10	0	10	60	20	40	.0	.0	.0	1	1
JUL 10...	2	20	0	20	60	50	10	.0	.0	.0	0	0
SEP 01...	0	40	--	40	80	--	30	.0	--	.0	2	--

DATE	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	SUS-PENDED NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT 03...	1	<50	<50	0	1	0	1	.7	10	0	10
FEB 06...	0	<50	<47	3	1	0	1	.7	10	10	0
APR 09...	0	<50	<48	2	1	0	1	.9	10	10	0
JUL 10...	0	<50	<50	0	1	0	1	.6	30	30	0
SEP 01...	2	<50	--	4	1	--	1	--	10	--	0

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT 02...	1835	66	15.0	28	5.0
DEC 05...	1125	A180	.0	46	22
JAN 14...	1645	A65	.0	7	1.2
MAR 02...	1745	A130	.5	17	6.0
APR 07...	1430	144	13.5	154	60
MAY 06...	1915	508	12.0	626	859
JUN 10...	1930	652	--	227	400
29...	1330	362	20.5	76	74
JUL 28...	1430	28	25.5	72	5.4
SEP 01...	1300	15	21.0	54	2.2
17...	1045	34	17.0	51	4.7

A Daily mean discharge.

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
SEP 01...	1100	21.0	15	31	36	66	95	100

06324000 CLEAR CREEK NEAR ARVADA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	SEP 1.76
TIME	1300
TOTAL CELLS/ML	6700
DIVERSITY: DIVISION	1.3
.CLASS	1.3
..ORDER	2.0
...FAMILY	2.8
....GENUS	3.2

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...MICRACTINIACEAE		
....GOLENKINIA	59	1
...OOCYSTACEAE		
....ANKISTRODESMUS	1000#	15
....DICTYOSPHAERIUM	180	3
...SCENEDESMACEAE		
....ACTINASTRUM	470	8
....SCENEDESMUS	880	14
....TETRASTRUM	240	4
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	240	4
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	1300#	20
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	180	3
...NAVICULACEAE		
....NAVICULA	410	7
....PINNULARIA	59	1
...NITZSCHIACEAE		
....NITZSCHIA	1100#	17
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	590	9

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

SEP. 1, 1976
1300 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...OOCYSTACEAE	
O	....ANKISTRODESMUS	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....MELOSIRA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPLEURA	
O	....AMPHIPRORA	
O	....CALONEIS	
O	....GYROSIGMA	
O	....NAVICULA	
O	....PINNULARIA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....CYMATOPLEURA	
O	....SURIRELLA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
	...OSCILLATORIACEAE	
O	....LYNGBYA	
	...RIVULARIACEAE	
O	....AMPHITHRIX	
	RHODOPHYTA	RED ALGAE
	.RHODOPHYCEAE	
	..NEMALIONALES	
	...CHANTRANSICACEAE	
O	....AUDOUINELLA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06324500 POWDER RIVER AT MOORHEAD, MT

LOCATION.--Lat 45°04'04", long 105°52'10", in NW¼SE¼NW¼ sec.8, T.9 S., R.48 E., Powder River County, Hydrologic Unit 10090207, on left bank 500 ft (152 m) downstream from discontinued post office at Moorhead, 6.2 mi (10.0 km) upstream from Buffalo Creek, and at mile 184.8 (297.3 km).

DRAINAGE AREA.--8,088 mi^2 (20,948 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1929 to September 1972, October 1974 to current year. Monthly discharge only for some periods, published in WSP 1309.

REVISED RECORDS.--WSP 1309: 1932(M). WSP 1729: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,334.6 ft (1,016.39 m) above mean sea level. Prior to Aug. 28, 1931, nonrecording gage at site 0.3 mi (0.5 km) upstream at different datum. Aug. 28, 1931, to Mar. 21, 1956, water-stage recorder at site 1.2 mi (1.9 km) upstream at different datum. Mar. 22 to July 24, 1956, nonrecording gage at site 0.3 mi (0.5 km) downstream at different datum. July 25 to Sept. 12, 1956, nonrecording gage at present site and datum.

REMARKS.--Records good except those for winter period, which are poor. Some regulation by three reservoirs in Wyoming with combined usable capacity of 36,800 acre-ft (45.4 hm^3). Diversions for irrigation of about 66,300 acres (268 km^2) above station.

AVERAGE DISCHARGE.--45 years, 458 ft^3/s (12.97 m^3/s), 331,800 acre-ft/yr (409 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,000 ft^3/s (651 m^3/s) June 17, 1962, gage height, 12.77 ft (3.892 m), from graph based on gage readings, from rating curve extended above 7,000 ft^3/s (198 m^3/s) on basis of slope-area measurement of peak flow; maximum gage height, 17.7 ft (5.39 m) Mar. 21, 1956, site and datum then in use (ice jam); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 30, 1923, reached a stage of 19 ft (5.8 m), site and datum used 1931-56, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,370 ft^3/s (152 m^3/s) June 23, gage height, 5.81 ft (1.771 m); minimum discharge, 19 ft^3/s (0.538 m^3/s) Sept. 6, gage height, 1.92 ft (0.585 m).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	420	220	200	300	300	294	780	2080	584	77	42
2	112	420	240	190	300	290	286	822	2190	598	85	30
3	123	390	280	180	300	280	294	668	1410	794	66	25
4	139	390	300	170	280	270	302	584	1350	1040	609	21
5	139	390	330	160	270	270	278	462	1450	1150	1030	20
6	143	380	360	160	270	270	264	380	1590	994	696	20
7	147	370	380	160	270	270	278	639	1930	898	486	21
8	151	360	400	160	270	280	278	510	1430	654	430	26
9	175	350	400	160	270	350	310	598	1460	522	350	30
10	165	330	400	160	280	550	334	654	1230	440	270	33
11	165	310	360	160	350	750	380	752	1010	370	231	40
12	175	280	320	170	420	1100	370	808	946	326	218	56
13	190	240	260	170	500	1000	342	1040	822	363	180	59
14	190	280	220	180	520	800	370	1230	766	558	151	54
15	195	390	170	190	520	700	410	1300	1200	342	127	56
16	205	326	140	190	520	800	430	1460	1310	251	105	72
17	212	310	115	200	500	1200	546	1470	2290	218	85	85
18	225	294	120	200	460	1100	612	1540	2150	180	72	69
19	251	270	130	200	430	808	752	1230	1300	170	64	66
20	244	220	140	210	420	522	898	1280	962	151	54	61
21	238	100	150	210	400	510	654	1390	882	131	52	61
22	238	55	160	210	390	558	510	1910	930	115	50	69
23	244	60	170	210	380	486	420	1860	1560	175	48	82
24	251	80	180	200	360	420	370	1840	3100	143	44	89
25	264	100	190	200	350	370	334	1940	1910	131	40	139
26	310	120	200	200	340	350	334	2160	1780	119	42	165
27	342	140	200	230	330	342	410	1920	1380	92	44	190
28	350	160	200	250	320	350	598	1710	1060	79	44	238
29	390	180	200	270	310	350	584	1350	808	102	44	270
30	360	200	200	280	---	326	752	1220	682	105	44	257
31	350	---	200	290	---	294	---	1520	---	79	48	---
TOTAL	6778	7915	7335	6120	10630	16266	12994	37027	42968	11874	5886	2446
MEAN	219	264	237	197	367	525	433	1194	1432	383	190	81.5
MAX	390	420	400	290	520	1200	898	2160	3100	1150	1030	270
MIN	95	55	115	160	270	270	264	380	682	79	40	20
AC-FT	13440	15700	14550	12140	21080	32260	25770	73440	85230	23550	11670	4850

CAL YR 1975 TOTAL 246785 MEAN 676 MAX 8370 MIN 16 AC-FT 489500
WTR YR 1976 TOTAL 168239 MEAN 460 MAX 3100 MIN 20 AC-FT 333700

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected at bridge on county road, 1.1 mi (1.8 km) upstream from discontinued post office at Moorhead, 1.2 mi (1.9 km) upstream from discharge station.

PERIOD OF RECORD.--Water years 1951-53, 1956-57, 1969-72, 1974 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: February 1951 to September 1953, October 1955 to September 1957, October 1974 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1974 to current year.

REMARKS.--Flow regulated by reservoirs and diversions for irrigation upstream from station. Flow affected by ice during most of winter months.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum daily, 32.0°C July 7, 1951; minimum daily, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 40,500 mg/L June 24, 1976; minimum daily, 5 mg/L Sept. 15, 1975.
SEDIMENT LOADS: Maximum daily, 770,000 tons (699,000 tonnes) June 19, 1975; minimum daily, 0.24 ton (0.22 tonne) Sept. 15, 1975.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum daily, 31.0°C July 23; minimum daily, 0.0°C on many days during November to March.
SEDIMENT CONCENTRATIONS: Maximum daily, 40,500 mg/L June 24; minimum daily, 67 mg/L Dec. 22.
SEDIMENT LOADS: Maximum daily, 339,000 tons (308,000 tonnes) June 24; minimum daily, 4.2 tons (3.8 tonnes) Sept. 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	AIR TEMPER-ATURE (DEG C)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	PER-CENT SATUR-ATION	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
OCT 16...	1230	211	2250	7.9	12.0	8.5	340	10.0	97	1.5	590	350
NOV 19...	1600	270	1980	8.4	-4.0	.0	360	12.4	96	1.2	550	310
DEC 17...	1130	115	2150	8.6	-10.0	.0	15	12.8	98	.4	640	360
JAN 21...	1100	211	2180	8.1	5.5	.0	30	8.5	65	2.4	570	270
FEB 19...	1230	427	1750	8.1	9.0	.0	40	11.7	90	2.6	420	220
MAR 17...	0930	1200	2500	8.2	8.0	.0	240	11.7	90	1.0	570	330
APR 29...	1045	579	1720	8.2	9.0	7.0	440	10.5	98	--	440	260
MAY 25...	1545	1860	730	7.7	21.0	19.0	1800	7.2	89	3.4	190	23
JUN 30...	1030	682	1340	7.8	28.0	21.5	2400	7.4	95	2.4	380	210
JUL 28...	1100	78	2680	8.4	27.0	23.0	45	7.7	103	1.5	730	510
AUG 24...	1430	44	2610	8.4	25.5	24.5	110	7.1	99	3.5	850	660
SEP 30...	1500	259	2020	8.4	21.0	18.0	1000	7.5	90	2.3	590	390

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)
OCT 16...	130	65	300	5.4	17	294	0	750	180	.5	5.1
NOV 19...	130	55	240	4.5	6.1	294	0	600	170	.3	6.8
DEC 17...	150	64	230	4.0	5.7	334	0	600	150	.4	8.8
JAN 21...	130	59	270	4.9	6.9	365	0	590	200	.4	10
FEB 19...	100	42	210	4.4	6.3	243	0	480	150	.5	7.5
MAR 17...	140	54	330	6.0	6.5	294	0	700	220	.4	6.6
APR 29...	99	48	190	3.9	5.0	231	0	520	92	.4	5.8
MAY 25...	50	16	74	2.3	3.1	204	0	--	.1	.3	8.0
JUN 30...	93	35	160	3.6	5.2	206	0	520	49	.4	8.4
JUL 28...	180	60	430	6.9	11	265	0	980	320	.8	7.0
AUG 24...	190	91	360	5.4	11	232	0	1100	180	.6	6.9
SEP 30...	130	65	270	4.8	8.5	251	0	660	170	.5	6.0

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)
OCT											
16...	1590	2.16	908	.06	.13	.97	1.1	1.2	.39	340	20
NOV											
19...	1350	1.84	984	.17	.04	3.1	3.1	3.3	.01	770	0
DEC											
17...	1370	1.86	426	.35	.04	.42	.46	.81	.00	260	10
JAN											
21...	1450	1.97	826	.64	.07	.78	.85	1.5	.03	380	0
FEB											
19...	1120	1.52	1290	.50	.13	--	--	--	.07	260	30
MAR											
17...	1600	2.18	5180	.60	.13	1.4	1.5	2.1	.30	310	10
APR											
29...	1070	1.46	1670	.30	.09	2.5	2.6	2.9	.08	70	20
MAY											
25...	--	--	--	.35	.21	4.9	5.1	5.5	2.2	370	70
JUN											
30...	973	1.32	1790	.44	.15	6.3	6.4	6.8	2.5	160	40
JUL											
28...	2130	2.90	449	.25	.00	1.5	1.5	1.8	.44	500	110
AUG											
24...	2050	2.79	244	.00	.00	.77	.77	.77	.17	400	90
SEP											
30...	1430	1.94	1000	.06	.00	3.3	3.3	3.4	1.1	330	110

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BISMUTH (BI) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)
OCT											
16...	1230	14000	--	9	--	--	10	--	--	0	--
NOV											
19...	1600	14000	10	6	1	70	0	0	<50	20	0
JAN											
21...	1100	1300	--	0	--	--	10	--	--	<10	--
APR											
29...	1045	15000	--	20	--	--	10	--	--	<10	--
JUL											
28...	1100	16000	--	6	--	--	0	--	--	<10	--

DATE	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED GALLIUM (GA) (UG/L)	DIS-SOLVED GER-MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)
OCT										
16...	40	--	--	30	--	--	--	20000	<100	--
NOV										
19...	10	0	<25	40	2	<10	<50	15000	<100	2
JAN										
21...	0	--	--	10	--	--	--	2100	<100	--
APR										
29...	30	--	--	40	--	--	--	30000	<100	--
JUL										
28...	30	--	--	40	--	--	--	22000	<100	--

DATE	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)
OCT										
16...	90	--	380	--	.2	--	4	--	50	--
NOV										
19...	80	60	310	0	.0	.0	3	3	<50	2
JAN										
21...	60	--	50	--	.2	--	1	--	<50	--
APR										
29...	80	--	550	--	.2	--	3	--	50	--
JUL										
28...	130	--	420	--	.2	--	5	--	50	--

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED TIN (SN) (UG/L)	DISSOLVED TITANIUM (TI) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	DISSOLVED ZIRCONIUM (ZR) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT										
16...	0	--	--	--	--	--	--	--	40	--
NOV										
19...	2	2	<3	1200	<25	<20	2.1	<40	70	0
JAN										
21...	2	--	--	--	--	--	--	--	60	--
APR										
29...	3	--	--	--	--	--	--	--	170	--
JUL										
28...	2	--	--	--	--	--	--	--	90	--

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)
SEP											
03...	1400	.00	.0	.0	0	.00	.0	.00	.0	.00	.0

DATE	TOTAL DIAZINON (UG/L)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)
SEP											
03...	.00	.00	.0	.00	.0	.00	.00	.0	.00	.0	.00

DATE	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL METHYL TRITHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL TOXAPHENE (UG/L)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
SEP											
03...	.0	.00	.00	.00	.00	0	0	.00	.00	.00	.00

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	DISSOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUSPENDED GROSS ALPHA AS U-NAT. (UG/L)	DISSOLVED GROSS BETA AS CS-137 (PC/L)	SUSPENDED GROSS BETA AS CS-137 (PC/L)	DISSOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUSPENDED GROSS BETA AS SR90 /Y90 (PC/L)	DISSOLVED RA-226 (RADON METHOD) (PC/L)	DISSOLVED URANIUM (DIRECT FLUOROMETRIC) (PC/L)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)
NOV											
19...	1600	60	89	24	20	20	17	.11	9.7	1600	570

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER- ATURE (DEG C)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .004 MM
APR 29...	1045	7.0	579	3240	5070	--	25
MAY 25...	1545	19.0	1860	6660	33400	--	34
AUG 24...	1430	24.5	44	234	28	99	--

DATE	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM	SUS. SED. FALL DIAM. % FINER THAN .250 MM	SUS. SED. FALL DIAM. % FINER THAN .500 MM	SUS. SED. FALL DIAM. % FINER THAN 1.00 MM
APR 29...	40	70	76	91	94	100
MAY 25...	44	69	92	100	--	--
AUG 24...	--	--	--	--	--	--

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.5	5.0	---	0.0	0.0	0.0	8.5	10.0	23.0	26.5	22.0	26.0
2	7.0	9.0	---	0.0	0.0	0.0	6.0	10.5	22.0	22.0	25.0	26.0
3	8.5	11.5	---	0.0	0.0	0.0	5.0	10.0	19.5	23.0	28.5	20.0
4	11.5	---	---	0.0	0.0	0.0	8.0	16.0	19.0	23.0	25.0	29.0
5	8.0	6.5	---	0.0	0.0	0.0	9.5	17.0	22.5	23.0	22.5	24.5
6	9.0	8.5	---	0.0	0.0	0.0	12.0	12.5	19.0	26.5	24.5	26.5
7	11.0	4.0	---	0.0	0.0	0.0	9.5	10.0	24.5	28.0	29.0	17.0
8	9.0	4.0	---	0.0	0.0	0.0	11.0	19.0	21.0	22.0	21.0	16.0
9	5.5	3.5	---	0.0	0.0	0.0	11.5	14.0	26.0	30.0	23.0	23.0
10	13.0	1.0	---	0.0	0.0	0.0	12.5	14.5	22.0	23.0	26.0	24.5
11	7.0	2.0	---	0.0	0.0	0.0	12.0	15.0	23.0	25.0	27.5	25.0
12	6.5	0.0	0.0	0.0	0.0	0.0	18.0	12.0	17.5	29.0	24.5	23.0
13	7.5	0.0	0.0	0.0	0.0	0.0	14.0	13.5	16.5	25.0	27.0	16.0
14	6.0	1.0	0.0	0.0	0.0	0.0	14.0	19.5	13.5	21.0	25.0	22.5
15	3.0	1.0	0.0	0.0	0.0	0.0	12.5	12.0	18.0	23.5	21.5	24.5
16	5.5	2.5	0.0	0.0	0.0	0.0	12.0	13.0	17.0	20.0	---	16.5
17	4.0	4.0	0.0	0.0	0.0	0.0	7.0	20.0	15.0	25.0	24.5	21.0
18	12.0	2.5	0.0	0.0	0.0	0.0	10.0	13.5	17.0	22.5	24.0	23.0
19	7.5	1.0	0.0	0.0	0.0	3.5	10.0	14.0	18.0	27.0	26.5	16.0
20	9.5	0.0	0.0	0.0	0.0	2.0	7.0	21.5	19.5	25.0	27.0	12.0
21	10.0	0.0	0.0	0.0	0.0	2.0	7.5	---	26.0	25.0	27.0	23.0
22	9.0	0.0	0.0	0.0	0.0	3.5	9.0	13.5	22.0	26.5	30.0	22.0
23	4.5	0.0	0.0	0.0	0.0	9.0	10.5	14.0	18.0	31.0	25.0	14.0
24	5.0	0.0	0.0	0.0	0.0	5.5	10.0	13.5	15.0	26.0	26.0	14.0
25	6.0	0.0	0.0	0.0	0.0	7.0	11.0	16.0	16.0	22.0	27.0	13.5
26	5.0	---	0.0	0.0	0.0	8.0	10.0	15.5	16.0	26.0	25.0	14.0
27	5.0	---	0.0	0.0	0.0	6.0	5.0	20.0	20.0	22.0	23.0	10.0
28	8.0	---	0.0	0.0	0.0	9.0	5.0	22.0	19.0	23.0	25.5	17.0
29	7.5	---	0.0	0.0	0.0	5.0	6.5	20.0	19.0	28.0	27.0	17.5
30	5.5	---	0.0	0.0	---	4.0	7.0	19.0	25.0	27.5	23.0	18.0
31	4.5	---	0.0	0.0	---	9.5	---	23.0	---	26.0	27.5	---
MONTH	7.5	3.0	---	0.0	0.0	2.5	9.5	15.5	19.5	25.0	25.5	20.0

YEAR	MAX	31.0	MIN	0.0	MEAN	11.0

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

		OCTOBER			NOVEMBER			DECEMBER	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	95	100	26	420	1330	1510	220	696	413
2	112	147	44	420	1170	1330	240	864	560
3	123	157	52	390	1000	1050	280	888	671
4	139	180	68	390	930	979	300	918	744
5	139	391	147	390	1010	1060	330	822	732
6	143	498	192	380	820	841	360	911	885
7	147	571	227	370	810	809	380	780	800
8	151	531	216	360	880	855	400	756	816
9	175	775	366	350	870	822	400	730	788
10	165	675	301	330	750	668	400	1900	2050
11	165	504	225	310	780	653	360	3380	3290
12	175	639	302	280	880	665	320	3280	2830
13	190	751	385	240	1120	726	260	1240	870
14	190	708	363	280	1690	1280	220	470	279
15	195	717	378	390	1930	2030	170	100	46
16	205	925	512	326	1440	1270	140	85	32
17	212	1060	607	310	1160	971	115	82	25
18	225	1200	729	294	1070	849	120	132	43
19	251	1460	989	270	984	717	130	88	31
20	244	1600	1050	220	840	499	140	152	57
21	238	1400	900	100	504	136	150	108	44
22	238	1180	758	55	354	53	160	67	29
23	244	1130	744	60	360	58	170	79	36
24	251	1130	766	80	270	58	180	102	50
25	264	1160	827	100	276	75	190	108	55
26	310	1400	1170	120	348	113	200	82	44
27	342	1430	1320	140	312	118	200	89	48
28	350	1210	1140	160	265	114	200	80	43
29	390	1470	1550	180	384	187	200	122	66
30	360	1210	1180	200	696	376	200	[illegible]	58
31	350	1450	1370	---	---	---	200	147	79
TOTAL	6778	---	18904	7915	---	20872	7335	---	16514

		JANUARY			FEBRUARY			MARCH	
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	200	107	58	300	137	111	300	374	303
2	190	119	61	300	140	113	290	109	85
3	180	82	40	300	102	83	280	119	90
4	170	98	45	280	93	70	270	226	165
5	160	132	57	270	98	71	270	169	123
6	160	113	49	270	138	101	270	197	144
7	160	90	39	270	138	101	270	182	133
8	160	100	43	270	148	108	280	153	116
9	160	116	50	270	165	120	350	264	249
10	160	109	47	280	174	132	550	309	459
11	160	98	42	350	170	161	750	609	1230
12	170	89	41	420	153	174	1100	691	2050
13	170	92	42	500	159	215	1000	367	991
14	180	108	52	520	191	268	800	297	642
15	190	143	73	520	193	271	700	259	490
16	190	199	102	520	239	336	800	495	1070
17	200	197	106	500	96	130	1200	565	1830
18	200	178	96	460	117	145	1100	7320	21700
19	200	194	105	430	110	128	808	9140	19900
20	210	153	87	420	108	122	522	4680	6600
21	210	185	105	400	123	133	510	3720	5120
22	210	169	96	390	110	116	550	4300	6600
23	210	127	72	380	110	113	480	4320	5670
24	200	154	83	360	115	112	420	5700	6460
25	200	182	98	350	495	468	370	3250	3250
26	200	204	110	340	154	141	350	2740	2590
27	230	208	124	330	523	466	342	2600	2400
28	250	196	132	320	457	395	350	2530	2390
29	270	185	135	310	487	408	350	2520	2380
30	280	239	181	---	---	---	320	2220	1950
31	290	189	148	---	---	---	294	2000	1590
TOTAL	6120	---	2519	10630	---	5312	16266	---	98770

06324500 POWDER RIVER AT MOORHEAD, MT--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	294	2000	1590	780	5580	11800	2080	19300	108000
2	286	1860	1440	822	6720	14900	2190	34500	204000
3	294	1430	1140	668	5040	9090	1410	28100	107000
4	302	1080	881	584	4540	7160	1350	16800	61200
5	278	1390	1040	462	3420	4270	1450	13000	50900
6	264	1500	1070	380	2780	2850	1590	10000	42900
7	278	1440	1080	639	4680	8070	1930	17800	92800
8	278	1430	1070	510	3480	4790	1430	8470	32700
9	310	1500	1260	596	3840	6200	1460	6380	25100
10	334	1670	1510	654	4540	8020	1230	4530	15000
11	380	2340	2400	752	7440	15100	1010	4790	13100
12	370	2120	2120	808	7320	16000	946	3660	9350
13	342	1990	1840	1040	7980	22400	822	2560	5680
14	370	1960	1960	1230	8400	27900	766	2960	6120
15	410	1810	2000	1300	5400	19000	1200	5040	16300
16	430	1920	2230	1460	7440	29300	1310	6380	22600
17	546	3340	4920	1470	10100	40100	2290	19900	123000
18	612	4680	7730	1540	8700	36200	2150	32500	189000
19	752	5960	12100	1230	7080	23500	1300	12400	43500
20	898	9480	23000	1280	7080	24500	962	6600	17100
21	654	9120	16100	1390	7560	28400	882	4290	10200
22	510	8760	12100	1910	10500	54100	930	3850	9670
23	420	5940	6740	1860	9360	47000	1560	8580	36100
24	370	3780	3780	1840	7240	36000	3100	40500	339000
25	334	2420	2180	1940	8040	42100	1910	13200	68100
26	334	2100	1890	2160	11900	69400	1780	7540	36200
27	410	2520	2790	1920	10600	55000	1380	7980	29700
28	598	4380	7070	1710	9020	41600	1060	8220	23500
29	584	3120	4920	1350	9740	35500	808	5340	11600
30	752	4920	9990	1220	8640	28500	682	6290	11600
31	---	---	---	1520	14700	60300	---	---	---
TOTAL	12994	---	139941	37027	---	829050	42968	---	1761020

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	584	3740	5900	77	390	81	42	132	15
2	598	3740	6040	85	550	126	30	129	10
3	794	3520	7550	66	500	89	25	111	7.5
4	1040	2620	7360	609	5480	9010	21	85	4.8
5	1150	6270	19500	1030	18600	51700	20	78	4.2
6	994	9630	25800	696	16000	30100	20	89	4.8
7	898	10600	25700	486	11000	14400	21	76	4.3
8	654	14100	24900	430	9600	11100	26	82	5.8
9	522	6400	9020	350	6800	6430	30	91	7.4
10	440	3960	4700	270	5740	4180	33	96	8.6
11	370	2420	2420	231	6100	3800	40	165	18
12	326	1560	1370	218	5930	3490	56	148	22
13	363	2150	2110	180	4800	2330	59	119	19
14	558	11000	16600	151	3200	1300	54	138	20
15	342	5400	4990	127	1580	542	56	163	25
16	251	2100	1420	105	640	181	72	115	22
17	218	1300	765	85	440	101	85	95	22
18	180	880	428	72	392	76	69	95	18
19	170	670	308	64	324	56	66	86	15
20	151	760	310	54	280	41	61	75	12
21	131	570	202	52	232	33	61	90	15
22	115	360	112	50	294	40	69	89	17
23	175	1690	799	48	226	29	82	97	21
24	143	930	359	44	212	25	89	100	24
25	131	820	290	40	174	19	139	400	150
26	119	650	209	42	168	19	165	825	368
27	92	1000	248	44	176	21	190	1080	554
28	79	1080	230	44	174	21	238	2090	1340
29	102	1120	308	44	146	17	270	2150	1570
30	105	960	272	44	168	20	257	2490	1730
31	79	600	128	48	173	22	---	---	---
TOTAL	11874	---	170348	5886	---	139399	2446	---	6054.4
YEAR	168239.0		3208703						

YELLOWSTONE RIVER BASIN
06324925 LITTLE POWDER RIVER NEAR WESTON, WY

LOCATION.--Lat 44°39'00", long 105°18'50", in SE¼NE¼ sec.19, T.54 N., R.70 W., Campbell County, Hydrologic Unit 10090208, at bridge on county road and 1.4 mi (2.3 km) northeast of Weston.
PERIOD OF RECORD.--Water years 1969, 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
APR											
29...	1200	27	2000	--	6.5	360	--	--	--	--	--
MAY											
06...	1630	--	2500	8.8	16.0	45	9.2	3.1	630	280	130
AUG											
17...	1530	7.1	3010	8.2	24.5	20	9.5	--	1700	1500	400
17...	1535	7.1	3010	8.2	24.5	--	--	--	--	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
APR											
29...	--	--	--	--	--	--	--	--	--	--	--
MAY											
06...	75	380	6.6	16	437	--	358	1100	7.9	.5	6.3
AUG											
17...	180	160	1.7	49	276	0	226	1900	16	.6	17
17...	--	--	--	48	--	--	--	--	--	--	--

DATE	TOTAL FILTRABLE RESIDUE (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)
APR										
29...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	--	1930	2.62	--	--	.01	.01	.02	.00	.96
AUG										
17...	--	2860	3.89	54.8	--	.02	.00	.03	.00	1.3
17...	2900	--	--	--	130	--	--	--	--	--

DATE	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
APR										
29...	--	--	--	--	--	--	--	--	853	62
MAY										
06...	.30	.96	.30	.97	.06	.00	4900	.1	153	--
AUG										
17...	.90	1.3	.90	1.3	.07	.05	3200	2.9	--	--
17...	--	--	--	--	--	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
APR										
29...	36	41	47	52	54	60	72	89	100	--
MAY										
06...	--	--	--	--	--	--	--	--	--	--
AUG										
17...	33	54	66	69	71	76	83	91	97	100
17...	--	--	--	--	--	--	--	--	--	--

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ANTI- MONY (SB) (UG/L)	DIS- SOLVED ANTI- MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	DIS- SOLVED BARIUM (BA) (UG/L)	TOTAL BERYL- LIUM (BE) (UG/L)	DIS- SOLVED BERYL- LIUM (BE) (UG/L)	TOTAL BISMUTH (BI) (UG/L)
MAY												
06...	1630	1300	0	--	--	1	0	--	--	10	10	--
AUG												
17...	1530	1200	0	1	0	2	2	--	--	0	8	--
A17...	1535	2800	<50	--	--	--	--	100	80	<20	<20	<21

DATE	DIS- SOLVED BISMUTH (BI) (UG/L)	TOTAL BORON (B) (UG/L)	DIS- SOLVED BORON (B) (UG/L)	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	TOTAL GALLIUM (GA) (UG/L)
MAY												
06...	--	--	270	<10	0	0	0	--	--	10	2	--
AUG												
17...	--	--	1800	<10	2	10	0	--	--	10	5	--
A17...	<19	1700	1800	10	1	<21	<19	<21	<19	11	<10	<20

DATE	DIS- SOLVED GALLIUM (GA) (UG/L)	TOTAL GER- MANIUM (GE) (UG/L)	DIS- SOLVED GER- MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)
MAY											
06...	--	--	--	1300	20	<100	0	30	40	230	90
AUG											
17...	--	--	--	1200	20	100	3	180	180	60	40
A17...	<20	<50	<50	1200	120	<32	<29	--	170	110	90

DATE	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB- DENUM (MO) (UG/L)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	DIS- SOLVED SILVER (AG) (UG/L)	TOTAL STRON- TIUM (SR) (UG/L)
MAY											
06...	.0	.0	1	0	<50	4	1	0	--	--	--
AUG											
17...	.0	.2	10	11	<50	9	7	7	--	--	--
A17...	--	--	53	45	<21	<19	--	--	<11	<10	1700

DATE	DIS- SOLVED STRON- TIUM (SR) (UG/L)	TOTAL TIN (SN) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	TOTAL TI- TANIUM (TI) (UG/L)	DIS- SOLVED TI- TANIUM (TI) (UG/L)	TOTAL VANA- DIUM (V) (UG/L)	DIS- SOLVED VANA- DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	TOTAL ZIR- CONIUM (ZR) (UG/L)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L)
MAY											
06...	--	--	--	--	--	--	.1	20	0	--	--
AUG											
17...	--	--	--	--	--	--	2.8	30	20	--	--
A17...	1500	<32	<29	<10	<10	<43	<39	--	20	<40	40

DATE	TIME	DIS- SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS- PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS- SOLVED GROSS BETA AS CS-137 (PC/L)	SUS- PENDED GROSS BETA AS CS-137 (PC/L)	DIS- SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS- PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS- SOLVED URANIUM (U) (UG/L)
AUG								
17...	1535	<46	11	34	6.1	29	5.3	8.8

A Trace elements determined by spectrographic analysis.

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

	MAY 6,76	AUG 17,76
DATE	MAY 6,76	AUG 17,76
TIME	1630	1530
TOTAL CELLS/ML	4900	3200
DIVERSITY: DIVISION	1.2	0.3
.CLASS	1.6	0.3
..ORDER	1.8	0.6
...FAMILY	2.3	0.6
....GENUS	2.4	0.6

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)				
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS	1600#	32	180	6
...SCENEDESMACEAE				
....SCENEDESMUS	210	5	--	-
CHRYSOPHYTA				
.BACILLARIOPHYCEAE				
..CENTRALES				
...COSCINODISCACEAE				
....CYCLOTELLA	210	5	180	6
..PENNALES				
...NAVICULACEAE				
....GYROSIGMA	*	0	--	-
....NAVICULA	420	9	--	-
...NITZSCHIACEAE				
....NITZSCHIA	1800#	37	2800#	89
.CHRYSOPHYCEAE				
..CHRYSOMONADALES				
...CHROMULINACEAE				
....CHRYSOCOCCUS	420	9	--	-
EUGLENOPHYTA (EUGLENOIDS)				
.CRYPTOPHYCEAE				
..CRYPTOMONIDALES				
...CRYPTOMONODACEAE				
....CRYPTOMONAS	*	0	--	-
.EUGLENOPHYCEAE				
..EUGLENALES				
...EUGLENACEAE				
....EUGLENA	100	3	--	-
....TRACHELOMONAS	210	5	--	-
PYRRHOPHYTA (FIRE ALGAE)				
.DINOPHYCEAE				
..PERIDINIALES				
...GLENODINIACEAE				
....GLENODINIUM	*	0	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06324925 LITTLE POWDER RIVER NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

MAY 6, 1976
1630 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...CYMBELLACEAE	
O	....CYMBELLA	
O	....RHOPALODIA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
O	....ASTERIONELLA	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPRORA	
O	....CALONEIS	
O	....GYROSIGMA	
O	....NAVICULA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
	...OSCILLATORIACEAE	
O	....SPIRULINA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

AUG. 17, 1976
1530 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
	..PENNALES	PENNATE
	...CYMBELLACEAE	
O	....CYMBELLA	
E	....EPITHEMIA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPRORA	
O	....CALONEIS	
O	....GYROSIGMA	
E	....NAVICULA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....CYMATOPLEURA	
O	....SURIRELLA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	
O	....SPIRULINA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY

LOCATION.--Lat 44°55'45", long 105°21'06", in NW¼SW¼ sec.13, T.57 N., R.71 W., Campbell County, Hydrologic Unit 10090208, on left bank 3.1 mi (5.0 km) upstream from Dry Creek, 5.0 mi (8.0 km) south of the Wyoming-Montana State line, and 20 mi (32 km) north of Weston.

DRAINAGE AREA.--1,230 mi² (3,190 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,410 ft (1,039 m), from topographic map.

REMARKS.--Records poor. Diversion above station for irrigation of about 80 acres (32 hm²) below. Beginning in August 1976, mine water has been pumped into the river in T.52 N., R.71 W., about 45 mi (72 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,000 ft³/s (28.3 m³/s) Jan. 17, 1974, gage height, 8.05 ft (2.454 m); no flow July 18, Aug. 15-19, 1973, Oct. 19, 1974, July 27 to Aug. 13, 16, 18, Oct. 2-5, 11, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 511 ft³/s (14.5 m³/s) June 19, gage height, 6.54 ft (1.993 m); no flow Oct. 2-5, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.07	.04	.38	6.6	8.8	1.9	15	3.9	11	1.0	2.5
2	0	.07	.06	.27	8.0	6.6	2.9	8.6	3.1	7.2	7.8	1.9
3	0	.07	.09	.34	7.4	5.0	3.3	5.4	2.3	146	42	1.4
4	0	.07	.09	.42	5.2	4.7	2.8	4.1	1.7	45	21	1.1
5	0	.07	.31	.39	4.3	4.7	2.3	4.1	1.3	28	14	.80
6	.01	.04	.36	.33	3.9	5.0	1.9	3.5	1.1	18	14	.60
7	.01	.04	.41	.29	5.3	5.7	1.8	3.7	1.5	20	8.4	.40
8	.01	.04	.48	.34	6.1	6.4	1.7	2.9	7.5	36	5.2	.30
9	.01	.07	.42	.43	6.9	7.4	1.7	3.2	4.8	24	2.9	.20
10	.01	.07	.37	.52	17	8.6	1.6	2.7	3.3	15	2.1	.20
11	0	.09	.33	.61	29	6.3	1.6	2.5	2.1	22	3.0	.20
12	.01	.09	.29	.69	48	4.5	2.3	2.7	1.6	14	4.1	.20
13	.02	.09	.23	.78	75	4.9	2.8	2.4	1.5	61	8.4	.20
14	.02	.09	.15	.72	98	4.1	2.2	1.7	7.3	119	7.9	.20
15	.04	.12	.17	.94	84	3.7	2.0	2.2	110	71	4.1	.20
16	.04	.19	.14	1.4	72	4.2	1.8	2.7	355	45	6.5	.20
17	.04	.12	.11	1.4	73	4.9	5.6	2.4	239	22	8.1	.20
18	.04	.09	.14	1.5	64	5.6	76	1.9	378	16	8.1	.20
19	.04	.09	.15	1.7	46	4.1	29	2.7	304	30	7.2	.20
20	.04	.04	.15	3.1	41	3.2	12	3.2	156	19	6.5	.20
21	.04	.04	.16	5.4	26	3.5	5.8	4.6	87	17	5.4	.20
22	.04	.04	.17	7.0	20	6.3	4.3	2.9	64	10	4.8	.20
23	.04	.04	.18	8.6	18	4.3	3.6	5.8	91	6.0	3.0	.20
24	.07	.05	.21	6.0	17	2.9	3.0	7.9	111	3.9	1.8	.20
25	.07	.04	.26	3.7	20	2.4	2.7	5.0	73	2.6	.80	.20
26	.07	.04	.42	2.5	16	2.4	3.0	3.9	58	2.0	1.0	.16
27	.07	.04	.58	2.7	14	2.1	4.0	4.8	42	1.5	2.5	.18
28	.07	.03	.64	3.0	13	1.9	5.4	3.2	33	1.1	6.8	1.0
29	.07	.03	.69	3.9	12	2.2	6.3	2.5	28	.80	5.2	2.7
30	.04	.02	.75	4.3	---	2.2	12	3.7	20	.70	4.3	.91
31	.07	---	.60	4.8	---	1.9	---	3.0	---	.60	3.3	---
TOTAL	1.00	1.99	9.15	68.45	856.7	140.5	207.3	124.9	2192.0	815.40	221.20	17.35
MEAN	.032	.066	.30	2.21	29.5	4.53	6.91	4.03	73.1	26.3	7.14	.58
MAX	.07	.19	.75	8.6	98	8.8	76	15	378	146	42	2.7
MIN	0	.02	.04	.27	3.9	1.9	1.6	1.7	1.1	.60	.80	.16
AC-FT	2.0	3.9	18	136	1700	279	411	248	4350	1620	439	34

CAL YR 1975 TOTAL 5312.11 MEAN 14.6 MAX 172 MIN 0 AC-FT 10540
WTR YR 1976 TOTAL 4655.94 MEAN 12.7 MAX 378 MIN 0 AC-FT 9240

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV											
07...	0915	.04	2800	8.0	5.0	5	10.9	--	B6	660	250
DEC											
05...	0915	A.31	5200	7.7	2.0	7	8.7	--	B1	1300	840
JAN											
09...	0915	A.43	4000	7.7	.5	7	10.8	--	<1	1100	630
FEB											
06...	0915	A3.9	--	7.6	.0	35	10.6	--	B1	400	170
MAR											
07...	0915	A5.7	2300	7.9	1.0	30	11.2	--	B1	740	420
APR											
09...	0830	A1.7	3400	8.1	8.0	30	10.8	--	22	930	580
MAY											
06...	0900	3.2	3000	8.8	12.0	50	9.2	2.6	--	710	310
06...	C0910	--	--	--	--	--	--	--	--	--	--
06...	1200	3.5	3000	8.8	12.5	55	9.2	3.2	--	650	260
06...	C1210	--	--	--	--	--	--	--	--	--	--
06...	1500	3.7	3100	8.8	16.0	45	9.0	2.6	--	660	270
06...	C1510	--	--	--	--	--	--	--	--	--	--
06...	1800	3.5	3100	8.8	17.0	45	8.8	--	--	650	270
06...	C1810	--	--	--	--	--	--	--	--	--	--
06...	2100	3.5	2950	8.6	15.0	45	8.4	3.0	--	670	300
06...	C2110	--	--	--	--	--	--	--	--	--	--
06...	2400	3.5	3100	8.6	12.5	50	8.4	--	--	670	290
07...	C0010	--	--	--	--	--	--	--	--	--	--
07...	0300	3.5	3000	8.7	11.0	45	8.4	2.6	--	700	330
07...	C0310	--	--	--	--	--	--	--	--	--	--
07...	0600	3.3	3000	8.8	9.0	45	8.3	--	--	710	330
07...	C0610	--	--	--	--	--	--	--	--	--	--
07...	0845	3.2	3300	8.2	10.0	35	9.6	--	67	680	300
JUN											
12...	0830	1.8	3000	8.0	16.5	60	7.4	--	B130	800	550
JUL											
10...	1000	16	810	7.5	23.0	5000	6.6	--	B2000	210	97
AUG											
06...	0900	15	2300	8.2	19.0	150	7.2	--	780	510	220
18...	1030	8.1	1940	8.4	20.5	60	7.3	--	--	510	230
18...	1330	8.6	2050	8.4	23.5	50	8.1	--	--	510	230
18...	1630	8.6	2120	8.4	26.5	55	8.3	--	--	500	230
18...	1930	8.4	1810	8.4	26.0	45	8.1	--	--	500	240
18...	2230	8.1	2150	8.2	25.0	45	7.2	--	--	510	240
19...	0130	7.7	2040	8.1	23.0	50	6.6	--	--	510	250
19...	0430	7.7	2250	8.1	21.0	55	6.1	--	--	510	240
19...	0730	7.4	2210	8.0	20.0	70	6.1	--	--	520	260
19...	1030	7.4	2210	8.4	21.5	60	6.8	--	--	510	250
SEP											
03...	0930	A1.4	3600	7.9	18.0	30	9.3	--	B52	1500	1300

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).
C Sample collected 1.5 ft (0.5 m) below water surface.

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	SUSPENDED ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUSPENDED ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	SUSPENDED BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	SUSPENDED CADMIUM (CD) (UG/L)
NOV												
07...	0915	220	220	0	1	0	1	0	0	0	10	10
JAN												
09...	0915	280	260	20	0	0	0	10	0	10	10	9
APR												
09...	0830	820	820	0	1	0	1	0	0	0	<10	<9
MAY												
06...	0900	1600	--	0	1	--	1	0	--	10	<10	--
06...	1500	1300	--	0	6	--	1	0	--	0	<10	--
06...	2100	1500	--	0	1	--	0	10	--	0	<10	--
07...	0300	1200	--	0	1	--	1	0	--	10	<10	--
JUL												
10...	1000	68000	68000	20	55	52	3	0	0	0	10	10
AUG												
18...	1030	2400	--	0	2	--	1	0	--	0	<10	--

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
NOV										
07...	110	93	410	7.0	16	495	0	406	1100	11
DEC										
05...	260	160	590	7.1	25	565	0	463	2100	15
JAN										
09...	240	130	560	7.2	23	610	0	500	1800	24
FEB										
06...	87	45	220	4.8	13	253	17	236	660	6.0
MAR										
07...	160	83	280	4.5	18	389	0	319	1000	11
APR										
09...	190	110	450	6.4	21	428	0	351	1500	11
MAY										
06...	130	93	550	9.0	17	487	--	399	1400	12
06...	--	--	--	--	--	--	--	--	--	--
06...	120	86	510	8.7	16	486	--	399	1300	9.9
06...	--	--	--	--	--	--	--	--	--	--
06...	130	82	500	8.5	17	475	--	390	1300	11
06...	--	--	--	--	--	--	--	--	--	--
06...	130	80	510	8.7	17	464	--	381	1300	14
06...	--	--	--	--	--	--	--	--	--	--
06...	130	84	490	8.2	17	457	--	375	1300	15
06...	--	--	--	--	--	--	--	--	--	--
06...	130	84	490	8.2	15	462	--	379	1300	9.8
07...	--	--	--	--	--	--	--	--	--	--
07...	130	92	490	8.0	17	456	--	374	1300	10
07...	--	--	--	--	--	--	--	--	--	--
07...	130	93	480	7.9	17	458	--	376	1300	10
07...	--	--	--	--	--	--	--	--	--	--
07...	130	87	450	7.5	17	463	0	380	1300	10
JUN										
12...	140	110	420	6.5	24	308	0	253	1400	10
JUL										
10...	46	23	120	3.6	11	137	0	112	340	4.2
AUG										
06...	110	57	320	6.2	17	356	0	292	880	8.2
18...	110	56	290	5.6	16	334	0	274	790	7.8
18...	110	56	270	5.2	16	330	0	271	790	7.2
18...	110	54	270	5.3	16	324	0	266	780	8.2
18...	110	55	270	5.3	16	318	0	261	770	6.8
18...	110	56	260	5.0	17	319	0	262	800	8.5
19...	110	57	270	5.2	18	321	0	263	780	7.5
19...	110	56	270	5.2	17	321	0	263	820	7.8
19...	110	59	270	5.2	17	319	0	262	820	7.5
19...	110	56	270	5.2	17	313	0	257	800	8.5
SEP										
03...	320	180	270	3.0	43	265	0	217	1900	13

DATE	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)
NOV												
07...	0	6	0	6	10	10	0	280	0	0	0	40
JAN												
09...	1	0	0	0	10	8	2	380	<100	<97	3	50
APR												
09...	1	0	0	0	10	9	1	780	<100	<98	2	40
MAY												
06...	1	0	--	0	10	--	2	1600	<100	--	3	30
06...	0	10	--	10	10	--	2	1300	<100	--	3	40
06...	0	0	--	0	10	--	2	1500	<100	--	3	40
07...	0	0	--	0	10	--	2	1200	<100	--	3	40
JUL												
10...	0	100	100	0	140	140	5	43000	200	200	1	90
AUG												
18...	0	0	--	0	<10	--	2	2200	<100	--	1	50

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)
NOV										
07...	.8	7.6	1990	2.71	.22	.05	--	.00	--	.66
DEC										
05...	.6	10	3440	4.68	2.88	.01	--	.04	--	.75
JAN										
09...	.8	11	3090	4.20	3.59	.15	--	.10	--	.71
FEB										
06...	.4	7.3	1180	1.60	12.4	.00	--	.03	--	1.4
MAR										
07...	.5	11	1760	2.39	27.1	.07	--	.02	--	.76
APR										
09...	.5	5.8	2500	3.40	11.5	.00	--	.03	--	.75
MAY										
06...	.6	5.5	2450	3.33	21.2	.02	.02	.02	.02	.75
06...	--	--	--	--	--	--	--	--	--	--
06...	.5	5.7	2290	3.11	21.6	.00	--	.02	--	.56
06...	--	--	--	--	--	--	--	--	--	--
06...	.6	5.5	2280	3.10	22.8	.01	.01	.02	.02	.75
06...	--	--	--	--	--	--	--	--	--	--
06...	.6	5.6	2290	3.11	21.6	.01	--	.02	--	.95
06...	--	--	--	--	--	--	--	--	--	--
06...	.6	5.8	2270	3.09	21.5	.00	.00	.02	.02	.69
06...	--	--	--	--	--	--	--	--	--	--
06...	.5	5.6	2260	3.07	21.4	.00	--	.05	--	.94
07...	--	--	--	--	--	--	--	--	--	--
07...	.6	5.6	2270	3.09	21.5	.00	.00	.02	.02	.76
07...	--	--	--	--	--	--	--	--	--	--
07...	.6	5.5	2260	3.07	20.1	.00	--	.02	--	.47
07...	--	--	--	--	--	--	--	--	--	--
07...	.5	5.5	2230	3.03	19.3	.21	--	.02	--	--
JUN										
12...	.5	6.4	2260	3.07	11.0	.17	--	.09	--	1.0
JUL										
10...	.4	8.9	621	.84	26.8	1.4	--	.18	--	8.3
AUG										
06...	.5	9.8	1580	2.15	64.0	.03	--	.05	--	4.2
18...	.6	8.1	1440	1.96	31.5	.04	.00	.01	.00	1.3
18...	.6	8.0	1420	1.93	33.0	.08	--	.07	--	1.0
18...	.6	8.0	1410	1.92	32.7	.07	--	.04	--	1.1
18...	.6	7.8	1390	1.89	31.5	.06	--	.07	--	1.0
18...	.6	7.8	1420	1.93	31.1	.04	--	.10	--	1.2
19...	.6	7.8	1410	1.92	29.3	.00	--	.01	--	.88
19...	.5	8.0	1450	1.97	30.1	.01	--	.05	--	1.2
19...	.5	8.1	1450	1.97	29.0	.00	--	.02	--	.83
19...	.5	8.2	1420	1.93	28.4	.01	--	.03	--	.89
SEP										
03...	.6	7.8	[illegible]	3.90	10.8	.04	--	.01	--	.74

DATE	SUS-PENDED LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	SUS-PENDED MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)
NOV											
07...	0	40	570	60	510	.0	.0	.0	4	3	1
JAN											
09...	0	60	180	30	150	.0	.0	.0	4	0	4
APR											
09...	0	50	220	70	150	.0	.0	.0	2	0	2
MAY											
06...	--	40	180	--	90	.0	--	.0	2	--	1
06...	--	40	180	--	100	.0	--	.0	1	--	2
06...	--	40	190	--	100	.0	--	.0	1	--	2
07...	--	40	170	--	100	.0	--	.0	1	--	2
JUL											
10...	60	30	620	610	10	.8	.8	.0	2	2	0
AUG											
18...	--	40	180	--	20	.0	--	.0	3	--	1

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
NOV										
07...	--	.66	--	.71	.03	--	150	10	--	--
DEC										
05...	--	.79	--	.80	.01	--	220	40	--	--
JAN										
09...	--	.81	--	.96	.02	--	200	20	--	--
FEB										
06...	--	1.4	--	1.4	.06	--	160	180	--	--
MAR										
07...	--	.78	--	.85	.02	--	250	10	--	--
APR										
09...	--	.78	--	.78	.04	--	210	10	--	--
MAY										
06...	.75	.77	.77	.79	.07	.02	510	20	5200	.4
06...	--	--	--	--	--	--	--	--	8500	--
06...	--	.58	--	.58	.07	--	2	60	3900	--
06...	--	--	--	--	--	--	--	--	5000	--
06...	.69	.77	.71	.78	.07	.02	130	10	6200	.5
06...	--	--	--	--	--	--	--	--	4800	--
06...	--	.97	--	.98	.06	--	140	30	5700	--
06...	--	--	--	--	--	--	--	--	14000	--
06...	.65	.71	.67	.71	.07	.02	600	20	7200	.4
06...	--	--	--	--	--	--	--	--	7800	--
06...	--	.99	--	.99	.05	--	170	20	10000	--
07...	--	--	--	--	--	--	--	--	6600	--
07...	.44	.78	.46	.78	.06	.02	140	10	3000	.4
07...	--	--	--	--	--	--	--	--	4100	--
07...	--	.49	--	.49	.07	--	160	0	1500	--
07...	--	--	--	--	--	--	--	--	840	--
07...	--	--	--	--	.04	--	160	10	--	--
JUN										
12...	--	1.1	--	1.3	.06	--	270	30	--	--
JUL										
10...	--	8.5	--	9.9	.07	--	140	100	--	--
AUG										
06...	--	4.2	--	4.2	.15	--	170	40	--	--
18...	.34	1.3	.34	1.3	.08	.00	180	20	3500	.3
18...	--	1.1	--	1.2	.07	--	180	30	8500	--
18...	--	1.1	--	1.2	.06	--	180	40	3200	--
18...	--	1.1	--	1.2	.06	--	180	20	5200	--
18...	--	1.3	--	1.3	.07	--	180	30	2600	--
19...	--	.89	--	.89	.06	--	190	20	660	--
19...	--	1.2	--	1.2	.08	--	190	40	590	--
19...	--	.85	--	.85	.08	--	190	30	42000	--
19...	--	.92	--	.93	.08	--	190	30	1800	--
SEP										
03...	--	.75	--	.79	.02	--	1200	20	--	--

DATE	TOTAL NICKEL (NI) (UG/L)	SUS-PENDED NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
NOV											
07...	<50	<46	4	1	0	2	.8	30	30	4	15
JAN											
09...	<50	<47	3	1	1	0	.5	30	20	10	8.1
APR											
09...	<50	<46	4	1	1	0	.5	30	20	10	6.7
MAY											
06...	<50	--	10	1	--	1	1.1	0	--	0	--
06...	<50	--	10	1	--	1	.8	0	--	0	--
06...	<50	--	10	1	--	1	1.1	10	--	0	--
07...	<50	--	10	1	--	1	.0	30	--	0	--
JUL											
10...	150	140	6	3	0	3	.0	520	520	0	40
AUG											
18...	<50	--	6	1	--	1	1.4	30	--	10	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM
NOV								
05...	1515	11.5	.07	103	.02	--	--	--
JAN								
16...	1125	.5	1.2	158	.51	--	--	--
FEB								
10...	1200	.0	A17	60	2.8	--	--	--
MAR								
05...	1110	.0	A4.7	180	2.3	--	--	--
APR								
07...	1625	15.5	A1.8	126	.61	--	--	--
29...	1300	8.0	6.1	194	3.2	--	--	--
MAY								
06...	0900	12.0	3.2	191	1.7	--	--	--
06...	1200	12.5	3.5	205	1.9	--	--	--
06...	1500	16.0	3.7	183	1.8	--	--	--
06...	1630	16.0	3.7	153	1.5	--	--	--
06...	1800	17.0	3.5	190	1.8	--	--	--
06...	2100	15.0	3.5	181	1.7	--	--	--
06...	2400	12.5	3.5	148	1.4	--	--	--
07...	0300	11.0	3.5	162	1.5	--	--	--
07...	0600	9.0	3.3	174	1.6	--	--	--
19...	1710	24.0	3.2	120	1.0	--	--	--
JUN								
15...	1620	15.0	166	4260	1910	90	99	100
16...	1300	14.0	353	12200	11600	98	100	--
17...	1500	15.5	234	2720	1720	95	100	--
18...	1145	14.0	379	7000	7160	90	99	100
30...	1830	23.0	17	470	22	--	--	--
AUG								
04...	1530	24.5	14	716	27	--	--	--
17...	1530	--	12	209	6.8	--	--	--
18...	1030	20.5	8.1	197	4.3	--	--	--
18...	1330	23.5	8.6	194	4.5	--	--	--
18...	1630	26.5	8.6	170	3.9	--	--	--
18...	1930	26.0	8.4	181	4.1	--	--	--
18...	2230	25.0	8.1	216	4.7	--	--	--
19...	0130	23.0	7.7	218	4.5	--	--	--
19...	0430	21.0	7.7	232	4.8	--	--	--
19...	0730	20.0	7.4	221	4.4	--	--	--
19...	1030	21.5	7.4	226	4.1	--	--	--
SEP								
02...	1530	23.5	1.7	102	.47	--	--	--

A Daily mean discharge.

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TEMPER-ATURE (DEG C)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
AUG							
19...	1030	7.4	21.5	28	37	52	63

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
AUG						
19...	65	69	76	83	91	100

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	MAY 6,76	MAY 6,76	MAY 6,76	MAY 6,76	MAY 6,76	MAY 6,76
TIME	0900	0910	1200	1210	1500	1510
TOTAL CELLS/ML	5200	8500	3900	5000	6200	4800
DIVERSITY: DIVISION	0.7	0.9	0.9	0.6	0.8	0.6
.CLASS	0.8	0.9	1.0	0.6	1.2	0.6
..ORDER	0.9	1.3	1.2	0.8	1.4	1.0
...FAMILY	1.4	1.8	1.9	1.5	1.9	1.6
....GENUS	1.6	2.0	2.0	1.7	2.0	1.7

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...OOCYSTACEAE												
....ANKISTRODESMUS	880#	17	1500#	18	790#	21	770#	16	1100#	19	430	10
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-	--	-	--	-
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-	220	5
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	98	2	1000	12	88	3	96	2	230	4	220	5
....MELOSIRA	--	-	--	-	--	-	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....COCCONEIS	--	-	--	-	--	-	--	-	*	0	--	-
...CYMBELLACEAE												
....AMPHORA	--	-	--	-	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	96	2	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	*	0	--	-	*	0	--	-
...FRAGILARIACEAE												
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE												
....AMPHIPRORA	98	2	250	3	88	3	290	6	110	2	220	5
....CALONEIS	98	2	--	-	*	0	*	0	*	0	--	-
....GYROSIGMA	98	2	250	3	*	0	96	2	*	0	--	-
....MASTOGLOIA	--	-	--	-	--	-	--	-	--	-	--	-
....NAVICULA	290	6	500	6	530	14	380	8	910#	15	650	14
....NEIDIUM	--	-	--	-	--	-	--	-	--	-	--	-
....PINNULARIA	--	-	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE												
....HANTZSCHIA	--	-	--	-	--	-	--	-	--	-	--	-
....NITZSCHIA	3500#	68	4800#	56	2100#	55	3300#	66	3300#	53	3000#	64
...SURIRELLACEAE												
....CYMATOPLEURA	--	-	--	-	--	-	--	-	--	-	--	-
....SURIRELLA	*	0	--	-	88	3	*	0	--	-	--	-
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...CHROMULINACEAE												
....CHRYSOCOCCUS	98	2	--	-	88	3	*	0	450	8	--	-
.XANTHOPHYCEAE												
..HETEROCOCCALES												
...CHLOROTHECIACEAE												
....OPHIOCYTIUM	--	-	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.MYXOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-	--	-
..OSCILLATORIALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE												
....LYNGBYA	--	-	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.CRYPTOPHYCEAE												
..CRYPTOMONIDALES												
...CRYPTOMONODACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	*	0	--	-	--	-
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	*	0	250	3	88	3	*	0	110	2	*	0
....LEPOCINCLIS	--	-	--	-	--	-	--	-	--	-	--	-
....PHACUS	*	0	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-	*	0	--	-
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...PERIDINIACEAE												
....PERIDINIUM	--	-	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

YELLOWSTONE RIVER BASIN
06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued
QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON

DATE	MAY 6,76		MAY 6,76		MAY 6,76		MAY 6,76		MAY 6,76	
TIME	1800		1810		2100		2110		2400	
TOTAL CELLS/ML	5700		14000		7200		7800		10000	
DIVERSITY: DIVISION	0.8		0.4		0.6		1.1		0.8	
.CLASS	1.0		0.8		0.6		1.1		1.0	
..ORDER	1.4		1.7		1.5		1.6		1.7	
...FAMILY	2.0		2.2		1.8		2.2		2.1	
....GENUS	2.1		2.5		1.9		2.2		2.1	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	1200#	21	360	3	1200#	17	2100#	27	2300#	23
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	1400#	18	--	-
....SCENEDESMUS	*	0	--	-	--	-	--	-	380	4
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	540	10	4700#	35	2500#	36	2400#	32	3300#	33
....MELOSIRA	--	-	1400	11	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	*	0	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	360	3	--	-	--	-	--	-
....RHOPALODIA	*	0	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....AMPHIPRORA	180	4	--	-	200	3	--	-	190	2
....CALONEIS	*	0	--	-	--	-	--	-	--	-
....GYROSIGMA	*	0	--	-	--	-	--	-	*	0
....MASTOGLOIA	*	0	--	-	--	-	--	-	--	-
....NAVICULA	720	13	360	3	590	9	170	3	--	-
....NEIDIUM	--	-	--	-	--	-	*	0	190	2
....PINNULARIA	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....HANTZSCHIA	*	0	--	-	--	-	--	-	--	-
....NITZSCHIA	2800#	50	4000#	29	2700#	38	1600#	21	3400#	34
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	--	-	--	-	--	-
....SURIRELLA	*	0	720	6	--	-	--	-	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...CHROMULINACEAE										
....CHRYSOCOCCUS	180	4	1400	11	--	-	--	-	380	4
.XANTHOPHYCEAE										
..HETEROCOCCALES										
...CHLOROTHECIACEAE										
....OPHIOCYTIUM	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.MYXOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-
..OSCILLATORIALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	*	0	--	-	--	-	*	0	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	90	2	360	3	--	-	*	0	--	-
....LEPOCINCLIS	--	-	--	-	--	-	--	-	--	-
....PHACUS	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	170	3	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...PERIDINIACEAE										
....PERIDINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

YELLOWSTONE RIVER BASIN

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	MAY 7,76		MAY 7,76		MAY 7,76		MAY 7,76		MAY 7,76	
TIME	0010		0300		0310		0600		0610	
TOTAL CELLS/ML	6600		3000		4100		1500		840	
DIVERSITY: DIVISION	1.6		1.0		1.0		0.8		1.0	
.CLASS	1.8		1.3		1.2		1.5		1.0	
..ORDER	2.2		1.3		1.2		1.5		1.7	
...FAMILY	2.4		2.0		1.6		1.9		2.0	
....GENUS	2.4		2.1		1.6		2.1		2.1	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	1600#	24	1400#	47	1700#	42	390#	26	480#	57
....SELENASTRUM	--	-	--	-	--	-	--	-	7	1
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	*	0	--	-	--	-	--	-	--	-
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	150#	17
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	1300#	20	--	-	--	-	*	0	15	2
....MELOSIRA	--	-	--	-	--	-	--	-	7	1
..PENNALES										
...ACHNANTHACEAE										
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	*	0	*	0	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	*	0	--	-	--	-	7	1
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....AMPHIPRORA	*	0	*	0	--	-	79	6	--	-
....CALONEIS	*	0	110	4	*	0	*	0	--	-
....GYROSIGMA	*	0	110	4	110	3	39	3	7	1
....MASTOGLOIA	--	-	--	-	--	-	*	0	--	-
....NAVICULA	260	4	110	4	220	5	79	6	29	3
....NEIDIUM	--	-	--	-	--	-	--	-	--	-
....PINNULARIA	*	0	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....HANTZSCHIA	--	-	--	-	--	-	--	-	--	-
....NITZSCHIA	1500#	23	800#	27	1800#	45	630#	42	81	10
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	*	0	--	-	--	-
....SURIRELLA	*	0	230	8	--	-	*	0	22	3
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...CHROMULINACEAE										
....CHRYSOCOCCUS	260	4	230	8	220	5	320#	21	--	-
.XANTHOPHYCEAE										
..HETEROCOCCALES										
...CHLOROTHECIACEAE										
....OPHIOCYTIUM	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.MYXOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	29	3
..OSCILLATORIALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	1700#	26	--	-	*	0	*	0	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	*	0	--	-	--	-	*	0	--	-
....LEPOCINCLIS	--	-	--	-	--	-	--	-	--	-
....PHACUS	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	87	2	--	-	--	-	--	-	15	2
PYRRHOPHYTA (FIRE ALGEA)										
.DINOPHYCEAE										
..PERIDINIALES										
...PERIDINIACEAE										
....PERIDINIUM	*	0	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

YELLOWSTONE RIVER BASIN

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 18,76		AUG 18,76		AUG 18,76		AUG 18,76		AUG 18,76	
TIME	1030		1330		1630		1930		2230	
TOTAL CELLS/ML	3500		8500		3200		5200		2600	
DIVERSITY: DIVISION	1.9		1.6		1.0		1.6		1.1	
.CLASS	1.9		1.6		1.0		1.8		1.1	
..ORDER	2.0		1.9		1.0		2.0		1.3	
...FAMILY	2.4		1.9		1.0		2.4		2.1	
....GENUS	2.5		2.1		1.0		2.8		2.2	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	280	9	1400#	17	1600#	51	510	10	390#	15
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	1000#	20	--	-
....OOCYSTIS	--	-	680	9	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	130	3	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	97	4
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	390#	15
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	380	11	--	-	--	-	510	10	--	-
....TETRASTRUM	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	95	3	--	-	--	-	260	5	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	510	7	--	-	--	-	97	4
....MELOSIRA	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....AMPHORA	--	-	--	-	--	-	--	-	--	-
....CYMBELLA	*	0	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....AMPHIPRORA	--	-	--	-	--	-	--	-	--	-
....CALONEIS	--	-	--	-	--	-	130	3	97	4
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-
....MASTOGLOIA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	190	6	--	-	--	-	--	-	--	-
....NEIDIUM	--	-	--	-	--	-	--	-	--	-
....PINNULARIA	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....HANTZSCHIA	--	-	--	-	--	-	--	-	--	-
....NITZSCHIA	1300#	38	4200#	51	1600#	51	1400#	27	1400#	52
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	--	-	*	0	--	-
....SURIRELLA	--	-	--	-	--	-	--	-	97	4
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...CHROMULINACEAE										
....CHRYSOCOCCUS	--	-	--	-	--	-	--	-	--	-
.XANTHOPHYCEAE										
..HETEROCOCCALES										
...CHLOROTHECIACEAE										
....OPHIOCYTIUM	--	-	--	-	--	-	130	3	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.MYXOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	680	9	--	-	1000#	20	--	-
..OSCILLATORIALES										
...NOSTOCACEAE										
....ANABAENA	570#	17	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	*	0	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	95	3	--	-	*	0	130	3	--	-
....LEPOCINCLIS	570#	17	--	-	--	-	--	-	--	-
....PHACUS	*	0	--	-	--	-	--	-	--	-
....TRACHELOMONAS	*	0	1000	13	--	-	--	-	97	4
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...PERIDINIACEAE										
....PERIDINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

YELLOWSTONE RIVER BASIN

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 19,76		AUG 19,76		AUG 19,76		AUG 19,76	
TIME	0130		0430		0730		1030	
TOTAL CELLS/ML	660		590		42000		1800	
DIVERSITY: DIVISION	1.6		0.0		0.7		0.4	
.CLASS	1.6		0.0		0.7		0.4	
..ORDER	1.8		0.0		0.7		0.7	
...FAMILY	2.6		0.0		0.8		0.7	
....GENUS	3.0		0.0		0.8		0.7	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	76	12	--	-	1100	3	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	38	6	--	-	1500	4	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....CRUCIGENIA	--	-	--	-	1500	4	--	-
....SCENEDESMUS	38	6	--	-	--	-	--	-
....TETRASTRUM	38	6	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	--	-	--	-	120	7
....MELOSIRA	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....COCCONEIS	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	9	2	--	-	--	-	--	-
...NAVICULACEAE								
....AMPHIPRORA	--	-	--	-	--	-	--	-
....CALONEIS	--	-	--	-	--	-	--	-
....GYROSIGMA	19	3	--	-	--	-	--	-
....MASTOGLOIA	--	-	--	-	--	-	--	-
....NAVICULA	140#	22	590#	101	--	-	--	-
....NEIDIUM	--	-	--	-	--	-	--	-
....PINNULARIA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....HANTZSCHIA	--	-	--	-	--	-	--	-
....NITZSCHIA	150#	23	--	-	1100	3	1600#	87
...SURIRELLACEAE								
....CYMATOPLEURA	--	-	--	-	--	-	--	-
....SURIRELLA	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...CHROMULINACEAE								
....CHRYSOCOCCUS	--	-	--	-	--	-	--	-
.XANTHOPHYCEAE								
..HETEROCOCCALES								
...CHLOROTHECIACEAE								
....OPHIOCYTIUM	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.MYXOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	19	3	--	-	--	-	--	-
..OSCILLATORIALES								
...NOSTOCACEAE								
....ANABAENA	*	0	--	-	--	-	--	-
...OSCILLATORIACEAE								
....LYNGBYA	110#	18	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	36000#	87	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOMONODACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	120	7
....LEPOCINCLIS	--	-	--	-	--	-	--	-
....PHACUS	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	360	1	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...PERIDINIACEAE								
....PERIDINIUM	19	3	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 15%

06324970 LITTLE POWDER RIVER ABOVE DRY CREEK, NEAR WESTON, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

MAY 6, 1976
0900 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPRORA	
O	....CALONEIS	
O	....GYROSIGMA	
O	....MASTOGLOIA	
O	....NAVICULA	
O	....PINNULARIA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	
O	....SPIRULINA	

AUG. 18, 1976
1030 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...NAVICULACEAE	NAVICULOID
O	....DIPLONEIS	
O	....GYROSIGMA	
E	....NAVICULA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
	...OSCILLATORIACEAE	
O	....LYNGBYA	
O	....OSCILLATORIA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

Reservoirs in Yellowstone River basin in Wyoming

06224500 BULL LAKE.--Lat 43°12'35", long 109°02'30", in E½NW¼ sec.30, T.3 N., R.2 W., Fremont County, Hydrologic Unit 10080001, Wind River Indian Reservation, at dam on Bull Lake Creek, 2.8 mi (4.5 km) upstream from mouth of Bull Lake Creek, and 9.8 mi (15.8 km) south of Lenore. DRAINAGE AREA, 210 mi^2 (544 km^2), of which 12 mi^2 (31.1 km^2) is probably noncontributing. PERIOD OF RECORD, April 1938 to current year. Monthend contents only for some periods, published in WSP 1309. Published as Bull Lake Reservoir near Lenore 1938-50. GAGE, water-stage recorder. Datum of gage is at mean sea level (Bureau of Reclamation datum).

REMARKS, reservoir is formed by rockfill dam completed by Bureau of Reclamation July 22, 1938. Capacity, 152,500 acre-ft (188 hm^3) below elevation 5,805.00 ft (1,769.364 m), top of spillway gates. Dead storage, 722 acre-ft (0.890 hm^3). Figures given herein represent total contents. Water used for irrigation near Riverton. COOPERATION, records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 154,200 acre-ft (190 hm^3) Aug. 10, 1965, elevation, 5,805.70 ft (1,769.577 m); minimum daily (since appreciable storage was attained), 5,540 acre-ft (6.83 hm^3) Mar. 15, 1950, elevation, 5,742.56 ft (1,750.332 m).

EXTREMES FOR CURRENT YEAR: Maximum daily contents, 149,100 acre-ft (184 hm^3) July 12, elevation, 5,803.93 ft (1,769.038 m); minimum daily, 56,480 acre-ft (69.6 hm^3) Sept. 30, elevation, 5,769.50 ft (1,758.544 m).

06258900 BOYSEN RESERVOIR.--Lat 43°25'00", long 108°10'37", in NW¼NW¼ sec.16, T.5 N., R.6 E., Fremont County, Hydrologic Unit 10080005, at dam on Wind River and 13 mi (21 km) north of Shoshoni. DRAINAGE AREA, 7,700 mi^2 (19,943 km^2). PERIOD OF RECORD, October 1951 to current year. GAGE, water-stage recorder. Datum of gage is at mean sea level, datum of 1933 (levels by Bureau of Reclamation).

REMARKS, reservoir is formed by rockfill dam completed by Bureau of Reclamation in October 1951. Capacity, 802,000 acre-ft (989 hm^3) below elevation 4,725.00 ft (1,440.180 m), top of spillway gate. Includes 59,880 acre-ft (73.8 hm^3) dead storage below elevation 4,657.00 ft (1,419.454 m), invert of penstock pipe. Figures given herein represent total contents. Water used for irrigation, flood control, and power development. COOPERATION, records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 922,400 acre-ft (1,140 hm^3) July 6, 7, 1967, elevation, 4,730.83 ft (1,441.957 m); minimum daily (since normal use of water started), 251,800 acre-ft (310 hm^3) Mar. 18, 19, 1956, elevation, 4,684.18 ft (1,427.738 m).

EXTREMES FOR CURRENT YEAR: Maximum daily contents, 739,800 acre-ft (912 hm^3) Aug. 26, elevation, 4,721.73 ft (1,439.183 m); minimum daily, 380,900 acre-ft (470 hm^3) May 14, elevation, 4,697.70 ft (1,431.859 m).

06260300 ANCHOR RESERVOIR.--Lat 43°39'50", long 108°49'27", in sec.26, T.43 N., R.100 W., Hot Springs County, Hydrologic Unit 10080007, at dam on South Fork Owl Creek, 2.0 mi (3.2 km) downstream from Middle Fork, 3.0 mi (4.8 km) southeast of Anchor, and 32 mi (51 km) west of Thermopolis. DRAINAGE AREA, 131 mi^2 (339 km^2). PERIOD OF RECORD, November 1960 to current year. GAGE, water-stage recorder. Datum of gage is mean sea level (Bureau of Reclamation datum).

REMARKS, reservoir is formed by concrete arch dam completed by Bureau of Reclamation in 1960. Capacity, 17,230 acre-ft (21.2 hm^3), below elevation 6,441.00 ft (1,963.217 m), crest of spillway. Includes 68 acre-ft (0.0838 hm^3) below elevation 6,343.75 ft (1,933.575 m), invert of river outlet. Figures given herein represent total contents. Water used for irrigation of lands in Owl Creek basin. COOPERATION, records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 9,250 acre-ft (11.4 hm^3) July 4, 1967, elevation, 6,418.52 ft (1,956.365 m); no storage on many days each year.

EXTREMES FOR CURRENT YEAR: Maximum daily contents, 1,590 acre-ft (1.96 hm^3) July 7, elevation, 6,377.84 ft (1,943.966 m); no storage on many days.

06281500 BUFFALO BILL RESERVOIR.--Lat 44°30'05", long 109°11'00", in NE¼ sec.12, T.52 N., R.103 W., Park County, Hydrologic Unit 10080013, at dam on Shoshone River, 5.0 mi (8.0 km) upstream from Trail Creek, and 6.0 mi (9.7 km) southwest of Cody. DRAINAGE AREA, 1,498 mi^2 (3,880 km^2). PERIOD OF RECORD, May to July 1909, January 1910 to current year. Monthend contents only prior to October 1938, published in WSP 1309. Prior to October 1944, published as Shoshone Reservoir near Cody. GAGE, water-stage recorder. Datum of gage is mean sea level (Bureau of Reclamation datum). Prior to July 8, 1959, nonrecording gage at same datum.

REMARKS, reservoir is formed by masonry dam completed by Bureau of Reclamation in 1909. Capacity (revised), 424,000 acre-ft (523 hm^3) between elevations 5,140.00 ft (1,566.672 m), gate sill, and 5,360.00 ft (1,633.728 m), crest of spillway. Dead storage negligible. Figures given herein represent total contents. Water used for power development and irrigation of lands east of Cody. COOPERATION, records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD: Maximum daily contents, 507,000 acre-ft (625 hm^3) June 15, 1918, elevation, 5,367.3 ft (1,635.95 m); minimum daily, 19,000 acre-ft (23.4 hm^3) Jan. 23-25, 1941, elevation, 5,225.3 ft (1,592.67 m).

EXTREMES FOR CURRENT YEAR: Maximum daily contents, 442,600 acre-ft (546 hm^3) July 13, elevation, 5,362.73 ft (1,634.560 m); minimum daily, 159,000 acre-ft (196 hm^3) May 7, elevation, 5,308.35 ft (1,617.985 m).

Reservoirs in Yellowstone River basin in Wyoming--Continued

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
06224500 BULL LAKE			
Sept. 30	5,775.50	70,320	-
Oct. 31	5,775.67	70,720	+400
Nov. 30	5,775.50	70,320	-400
Dec. 31	5,775.45	70,200	-120
CAL YR 1975	-	-	-13,820
Jan. 31	5,775.15	69,480	-720
Feb. 29	5,774.70	68,410	-1,070
Mar. 31	5,774.45	67,820	-590
Apr. 30	5,774.65	68,290	+470
May 31	5,785.20	94,820	+26,530
June 30	5,798.45	132,300	+37,480
July 31	5,801.70	142,200	+9,900
Aug. 31	5,788.75	104,400	-37,800
Sept. 30	5,769.50	56,480	-47,920
WTR YR 1976	-	-	-13,840
06258900 BOYSEN RESERVOIR			
Sept. 30	4,720.80	722,800	-
Oct. 31	4,720.00	708,300	-14,500
Nov. 30	4,719.01	690,700	-17,600
Dec. 31	4,716.42	646,100	-44,600
CAL YR 1975	-	-	+28,100
Jan. 31	4,711.75	571,200	-74,900
Feb. 29	4,707.70	511,100	-60,100
Mar. 31	4,705.34	477,900	-33,200
Apr. 30	4,700.00	408,400	-69,500
May 31	4,702.85	444,500	+36,100
June 30	4,713.98	606,100	+161,600
July 31	4,718.87	688,300	+82,200
Aug. 31	4,721.64	738,200	+49,900
Sept. 30	4,721.63	738,000	-200
WTR YR 1976	-	-	+15,200
06260300 ANCHOR RESERVOIR			
Sept. 30	Dry	0	-
Oct. 31	Dry	0	0
Nov. 30	Dry	0	0
Dec. 31	Dry	0	0
CAL YR 1975	-	-	0
Jan. 31	Dry	0	0
Feb. 29	-	(a)	0
Mar. 31	6,354.68	257	+257
Apr. 30	6,370.83	1,010	+753
May 31	6,370.23	970	-40
June 30	-	(a)	-970
July 31	Dry	0	0
Aug. 31	Dry	0	0
Sept. 30	Dry	0	0
WTR YR 1976	-	-	0

[a] Small pool, contents not known.

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
06281500 BUFFALO BILL RESERVOIR			
Sept. 30	5,341.34	307,400	-
Oct. 31	5,336.54	281,800	-25,600
Nov. 30	5,338.30	291,000	+9,200
Dec. 31	5,335.18	274,900	-16,100
CAL YR 1975	-	-	-400
Jan. 31	5,333.70	267,500	-7,400
Feb. 29	5,329.30	246,500	-21,000
Mar. 31	5,324.26	224,000	-22,500
Apr. 30	5,311.20	173,000	-51,100
May 31	5,329.70	248,300	+75,300
June 30	5,348.57	[a]350,900	+102,600
July 31	5,360.78	429,200	+78,300
Aug. 31	5,351.26	367,400	-61,800
Sept. 30	5,343.10	318,800	-48,600
WTR YR 1976	-	-	+11,400

[a] New capacity table put in use in June.

06332800 LITTLE MISSOURI RIVER NEAR NEW HAVEN, WY

LOCATION.--Lat 44°43'43", long 104°55'28", in SW¼SE¼ sec.20, T.55 N., R.67 W., Crook County, Hydrologic Unit 10110201, at bridge on county road, 4.0 mi (6.4 km) west of New Haven, and 10.5 mi (16.9 km) north of Oshoto.

PERIOD OF RECORD.--July 1975 to September 1976.

REMARKS.--No flow was observed July 2, Aug. 6, Sept. 3, Oct. 2, Nov. 5, Dec. 3, 1975, Feb. 5, Apr. 8, May 5, June 11, Aug. 5, Sept. 2, 29, 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
JUL 09...	1245	E.50	1100	7.3	28.0	40	6.2	260	390	310	77

E Estimate.

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
JUL 09...	47	98	2.2	11	89	0	73	500	3.6	.7	6.4

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
JUL 09...	788	1.07	1.06	.00	.05	.93	.98	.98	.05	32

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	SUSPENDED ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUSPENDED ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	SUSPENDED BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)
JUL 09...	1245	1500	1500	0	2	1	1	0	0	0	160	<10

DATE	SUSPENDED CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	SUSPENDED CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUSPENDED COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUSPENDED LEAD (PB) (UG/L)
JUL 09...	<9	1	0	0	0	20	15	5	2200	80	<100	<98

DATE	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	SUSPENDED LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUSPENDED MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	SUSPENDED MOLYBDENUM (MO) (UG/L)
JUL 09...	2	140	0	140	230	60	170	.0	.0	.0	0	0

DATE	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	SUSPENDED NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	SUSPENDED SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUSPENDED ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
JUL 09...	0	<50	<45	5	0	0	0	.0	40	20	20

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY

LOCATION.--Lat 43°25'45", long 105°02'43", in SE¼SW¼NE¼ sec.20, T.40 N., R.68 W., Converse County, Hydrologic Unit 10120103, Thunder Basin National Grassland, on right bank at the Fiddleback Ranch, 1.2 mi (1.9 km) downstream from confluence of Antelope Creek and Dry Fork Cheyenne River, and 3.0 mi (4.8 km) west of Dull Center.

DRAINAGE AREA.--1,527 mi² (3,955 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 4,310 ft (1,314 m), from topographic map.

REMARKS.--Records fair except those above 700 ft³/s (19.8 m³/s) and those below 30 ft³/s (0.85 m³/s), which are poor.

EXTREMES FOR CURRENT PERIOD.--April to September 1976: Maximum discharge, 2,350 ft³/s (66.6 m³/s) May 30, gage height, 5.19 ft (1.582 m), from floodmarks, from rating curve extended above 680 ft³/s (19.3 m³/s) on basis of slope-area measurement of peak flow; no flow Sept. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							.11	.18	175	.43	.95	.02
2							.11	.11	72	48	.43	.05
3							.11	.18	48	95	.34	.05
4							.18	.18	29	18	.34	.11
5							.11	.11	18	7.2	3.7	.05
6							.27	.11	13	5.1	11	0
7							.27	.11	9.5	15	1.1	0
8							.27	.05	5.7	5.1	.68	.05
9							.27	.11	4.0	5.1	.80	.11
10							.34	.11	2.2	1.8	.68	.05
11							.34	.11	1.3	1.3	.68	.11
12							.34	.18	1.1	.95	.80	.05
13							.34	.11	1.3	1.1	.80	.11
14							.27	.27	151	.80	.68	.11
15							.18	.27	388	.68	50	.05
16							.27	.18	54	.34	31	.05
17							.18	.18	36	.34	1.8	.05
18							.18	.18	32	.34	.68	.05
19							.11	.18	21	.34	.34	.05
20							.11	.11	20	.43	.18	.11
21							.05	.05	10	.43	.18	.11
22							.11	.05	7.8	.43	.18	.18
23							.11	17	21	.43	.11	.18
24							.11	12	22	.34	.11	.18
25							.11	5.7	6.4	.34	.11	.18
26							.27	4.0	1.3	.27	.11	.11
27							.34	2.6	.80	.34	.11	.11
28							.27	1.5	.80	.27	.11	.11
29							.27	170	.80	.27	.05	.18
30							.27	948	.55	.27	.05	.11
31							---	271	---	.34	.02	---
TOTAL							6.27	1434.92	1153.55	211.08	107.72	2.68
MEAN							.21	46.3	38.5	6.81	3.47	.089
MAX							.34	948	388	95	50	.18
MIN							.05	.05	.55	.27	.02	0
AC-FT							12	2850	2290	419	214	5.3

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--November 1975 to September 1976.

REMARKS.--No flow was observed Jan. 6.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
NOV 04...	1345	E.20	3200	8.1	14.0	20	9.8	--	1200	880	270
DEC 02...	1500	E.50	3000	7.8	3.5	6	10.4	3.3	1100	780	250
FEB 03...	1400	E.40	3200	7.7	.5	10	10.6	2.7	1100	780	260
MAY 04...	1345	.18	3500	8.0	16.5	25	9.2	3.2	1200	920	260
JUN 09...	1515	4.0	2000	8.1	28.0	20	7.1	2.6	760	530	180
JUL 08...	1130	5.7	1500	7.9	24.0	110	7.4	3.7	610	430	150
AUG 03...	1600	.43	3000	8.0	27.0	30	9.6	4.2	1100	810	240
SEP 01...	1030	.02	3000	8.1	21.0	80	9.4	3.6	1100	850	240
28...	1500	.11	3200	7.9	16.0	6	8.9	2.9	1100	800	250

E Estimate.

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
NOV 04...	120	320	4.1	20	347	0	285	1500	25	.5	11
DEC 02...	110	280	3.7	16	363	0	298	1300	20	.5	13
FEB 03...	110	290	3.8	16	397	0	326	1300	21	.5	12
MAY 04...	130	320	4.0	20	326	0	267	1600	28	.5	6.2
JUN 09...	75	200	3.2	19	277	0	227	960	18	.5	15
JUL 08...	57	130	2.3	13	214	0	176	700	12	.4	11
AUG 03...	110	290	3.9	22	292	0	240	1400	23	.5	12
SEP 01...	110	280	3.8	20	247	0	203	1400	21	.6	8.9
28...	110	310	4.1	23	333	0	273	1400	25	.5	12

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)
NOV 04...	2440	3.32	1.32	.01	.03	.46	.49	.50	.03	100	0
DEC 02...	2170	2.95	2.93	.03	.09	.00	.05	.08	.01	180	160
FEB 03...	2210	3.01	2.39	.06	.05	.62	.67	.73	.00	100	10
MAY 04...	2530	3.44	1.23	.04	.15	--	--	--	.04	270	40
JUN 09...	1600	2.18	17.3	.05	.13	.55	.68	.73	.05	120	20
JUL 08...	1180	1.60	18.2	.10	.18	.43	.61	.71	.05	120	60
AUG 03...	2240	3.05	2.60	.01	.03	.69	.72	.73	.07	130	30
SEP 01...	2200	2.99	.12	.10	.23	.74	.97	1.1	.06	160	30
28...	2290	3.11	.68	.04	.19	.65	.84	.88	.07	130	0

06365900 CHEYENNE RIVER NEAR DULL CENTER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)
NOV 04...	1345	460	20	2	1	0	10	10	0	30	8
FEB 03...	1400	170	0	0	0	10	10	10	2	0	0
MAY 04...	1345	1400	--	0	--	0	--	10	--	10	--
JUL 08...	1130	2800	--	3	--	0	--	<10	--	0	--
SEP 28...	1500	170	--	1	--	0	--	20	--	10	--

DATE	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
NOV 04...	10	1	500	100	0	40	30	160	110	.0
FEB 03...	10	2	310	<100	4	30	30	730	630	.0
MAY 04...	20	--	1400	<100	--	30	--	220	--	.0
JUL 08...	10	--	2200	<100	--	40	--	70	--	.0
SEP 28...	<10	--	230	<100	--	40	--	210	--	.0

DATE	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
NOV 04...	.0	2	2	50	3	0	0	1.3	40	0
FEB 03...	.0	1	1	<50	3	0	0	.4	20	10
MAY 04...	--	1	--	<50	--	0	--	--	30	--
JUL 08...	--	0	--	50	--	1	--	--	50	--
SEP 28...	--	2	--	<50	--	0	--	--	90	--

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. FALL DIAM. % FINER THAN .125 MM
NOV 04...	1345	14.0	E.20	38	.02	--	--	--	--
DEC 02...	1500	3.5	E.50	26	.04	--	--	--	--
FEB 03...	1400	.5	E.40	170	.18	--	--	--	--
MAY 23...	1350	9.0	41	21500	2380	83	99	100	--
31...	1205	17.0	283	4620	3450	82	94	98	100

E Estimate.

06376300 BLACK THUNDER CREEK NEAR HAMPSHIRE, WY

LOCATION.--Lat 43°34'51", long 104°43'04", in NW¼NW¼ sec.31, T.42 N., R.65 W., Weston County, Hydrologic Unit 10120103, on right bank 20 ft (6 m) downstream from bridge on county road, 1.3 mi (2.1 km) west of Hampshire, and 4.0 mi (6.4 km) upstream from mouth.

DRAINAGE AREA.--535 mi^2 (1,386 km^2), approximately.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,060 ft (1,237 m), from map prepared by Army Map Service, Corps of Engineers.

REMARKS.--Records poor. There are many small stock ponds above station. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 804 ft^3/s (22.8 m^3/s) Sept. 9, 1973, gage height, 11.49 ft (3.502 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 787 ft^3/s (22.3 m^3/s) May 30, gage height, 10.41 ft (3.173 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.06	.30	0	.60	24	.04	8.7	
2			0	0	.04	.14	0	.64	4.6	0	1.4	
3			.06	0	0	0	0	.64	3.0	6.0	3.7	
4			.08	0	0	0	0	.54	6.8	3.0	1.9	
5			.12	0	0	0	0	.37	3.6	1.0	7.2	
6			.08	0	0	0	0	.27	1.5	0	4.1	
7			.04	0	0	0	0	.20	1.3	0	1.5	
8			.04	0	0	0	0	.18	.50	0	.41	
9			.04	0	.02	0	0	.16	.35	0	.18	
10			.08	0	256	.18	0	.10	.28	0	.03	
11			.06	0	94	.14	0	0	.24	0	0	
12			.02	0	18	.08	.20	0	.22	0	0	
13			0	0	16	0	.16	0	.21	0	0	
14			0	0	8.2	0	0	0	2.5	0	0	
15			0	0	4.8	0	0	0	408	0	0	
16			0	.02	8.6	0	0	0	264	0	21	
17			0	.08	6.5	.08	.20	0	22	0	9.3	
18			0	.12	2.0	.23	.50	0	8.8	0	2.2	
19			0	.10	1.0	.18	2.1	.50	3.5	0	.71	
20			0	.06	.44	.06	1.3	.56	2.0	.02	.13	
21			0	.06	.40	.06	.78	.52	1.0	.14	.02	
22			0	.06	.80	.06	.46	.45	.30	.23	0	
23			0	.02	1.3	.25	.28	1.4	.10	.22	0	
24			0	0	1.6	.20	.12	4.7	0	.18	0	
25			0	0	1.5	.10	0	5.4	0	.14	0	
26			0	0	1.8	0	0	4.0	0	.10	0	
27			0	0	1.3	0	0	3.1	.20	.06	0	
28			0	.08	.70	0	0	2.0	.18	.04	0	
29			0	.08	.60	0	0	32	.16	.04	0	
30			0	.04	---	0	.50	714	.14	.03	0	
31		---	0	.04	---	0	---	248	---	.01	0	---
TOTAL	0	0	.62	.76	425.66	2.06	6.60	1020.33	759.48	11.25	62.48	0
MEAN	0	0	.020	.025	14.7	.067	.22	32.9	25.3	.36	2.02	0
MAX	0	0	.12	.12	256	.30	2.1	714	408	6.0	21	0
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	1.2	1.5	844	4.1	13	2020	1510	22	124	0

CAL YR 1975 TOTAL 1571.82 MEAN 4.31 MAX 124 MIN 0 AC-FT 3120
WTR YR 1976 TOTAL 2289.24 MEAN 6.25 MAX 714 MIN 0 AC-FT 4540

06386000 LANCE CREEK AT SPENCER, WY

LOCATION.--Lat 43°22', long 104°16', in sec.14, T.39 N., R.62 W., Niobrara County, Hydrologic Unit 10120104, on right bank 0.4 mi (0.6 km) north of Spencer, 1.0 mi (1.6 km) upstream from mouth, and 34 mi (55 km) south of Newcastle.

DRAINAGE AREA.--2,070 mi² (5,360 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1948 to September 1954, August 1956 to current year.

REVISED RECORDS.--WSP 1209: 1948(P), 1950.

GAGE.--Water-stage recorder. Altitude of gage is 3,750 ft (1,143 m), from map prepared by Army Map Service, Corps of Engineers. Prior to Aug. 14, 1948, nonrecording gage at same site and datum.

REMARKS.--Records poor. There are many small reservoirs above station used for storage of stock and irrigation water, total capacity, about 12,800 acre-ft (15.8 hm³). Diversions for irrigation of about 3,500 acres (14.2 km²) above station.

AVERAGE DISCHARGE.--26 years, 24.3 ft³/s (0.688 m³/s), 17,610 acre-ft/yr (21.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,410 ft³/s (210 m³/s) May 24, 1971, gage height, 9.67 ft (2.947 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 750 ft³/s (21.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	(m³/s)	Gage height (ft)	(m)
Aug. 1	0700	*1,230	34.8	4.96	1.512

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0		0	2.1	.23	.15	131	8.5	412	
2			0		0	.52	.18	.15	67	8.4	102	
3			.05		0	.24	.14	.10	37	16	20	
4			.30		0	0	.10	.10	25	29	7.0	
5			.40		0	.05	.10	.10	21	19	3.0	
6			.35		0	.14	.15	.05	17	15	1.8	
7			.30		0	.36	.20	0	14	29	1.1	
8			.20		0	.69	.10	0	12	7.6	.70	
9			.10		0	1.6	.10	0	9.9	5.3	.43	
10			.10		6.1	2.1	.20	0	8.5	3.5	.33	
11			0		14	2.2	.20	0	7.5	2.6	.24	
12			0		13	1.7	.10	0	6.5	1.6	.16	
13			0		11	1.4	0	0	7.5	1.0	.93	
14			0		10	1.1	0	0	18	.84	19	
15			0		11	.80	0	.09	28	11	15	
16			0		10	.54	.30	.26	343	3.8	10	
17			0		13	.44	.80	.10	156	2.4	4.4	
18			0		11	2.7	1.1	.08	61	1.6	1.9	
19			0		9.0	7.6	.52	.06	28	1.1	.88	
20			0		6.7	6.0	.26	.06	20	.75	.44	
21			0		7.4	4.9	.18	.24	18	.58	.30	
22			0		8.4	3.9	.12	.13	16	.45	.23	
23			0		10	2.9	.08	2.6	122	.35	.16	
24			0		10	2.2	.04	9.0	70	.25	.10	
25			0		10	1.9	.04	122	37	.81	.06	
26			0		9.0	1.1	.01	60	22	.54	0	
27			0		9.0	.95	.06	25	16	.39	0	
28			0		8.2	.66	.20	16	11	.29	0	
29			0		4.8	.54	.20	14	10	.21	0	
30			0		---	.36	.20	16	9.5	.10	0	
31		---	0		---	.29	---	46	---	1.0	0	---
TOTAL	0	0	1.80	0	191.6	51.98	5.91	312.27	1349.4	172.96	602.16	0
MEAN	0	0	.058	0	6.61	1.68	.20	10.1	45.0	5.58	19.4	0
MAX	0	0	.40	0	14	7.6	1.1	122	343	29	412	0
MIN	0	0	0	0	0	0	0	0	6.5	.10	0	0
AC-FT	0	0	3.6	0	380	103	12	619	2680	343	1190	0

CAL YR 1975 TOTAL 1455.80 MEAN 3.99 MAX 348 MIN 0 AC-FT 2890
WTR YR 1976 TOTAL 2688.08 MEAN 7.34 MAX 412 MIN 0 AC-FT 5330

06386000 LANCE CREEK AT SPENCER, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1950-54, 1957-59, November 1975 to September 1976.

REMARKS.--No flow observed Nov. 5, Jan. 7, Feb. 4, Sept. 1, 29.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPF-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)
DEC 03...	0915	E.05	5000	7.5	2.0	15	6.3	1.7	1200	890	320
MAR 05...	0900	.05	4000	7.3	.5	2	7.4	1.8	1100	790	300
APR 07...	0915	E.20	5000	7.5	8.0	2	8.8	2.4	1300	930	320
MAY 05...	0900	E.10	5000	7.7	11.5	5	8.6	2.5	1300	910	320
JUN 10...	0930	A8.5	3200	8.0	19.0	180	7.8	2.8	750	450	180
JUL 08...	1430	A7.6	2300	8.1	32.0	75	7.6	5.2	550	310	140
AUG 04...	0945	A7.0	1750	7.8	20.0	45	7.6	3.3	420	230	110

A Daily mean discharge.
E Estimate.

DATE	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)
DEC 03...	100	590	7.4	13	393	0	322	2000	100	.6	16
MAR 05...	94	610	7.9	12	423	0	347	1900	100	.5	16
APR 07...	110	640	7.9	13	396	0	325	2100	110	.5	15
MAY 05...	110	680	8.4	15	412	0	338	2200	120	.5	18
JUN 10...	74	520	8.2	17	371	0	304	1400	97	.5	18
JUL 08...	48	330	6.1	12	285	0	234	930	71	.5	10
AUG 04...	36	230	4.9	10	232	0	190	650	41	.5	10

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)
DEC 03...	3330	4.53	.45	.02	.02	.98	1.0	1.0	.04	160	310
MAR 05...	3240	4.41	.44	.03	.00	.61	.61	.64	.00	130	290
APR 07...	3500	4.76	1.89	.06	.04	.56	.60	.66	.02	130	160
MAY 05...	3670	4.99	.99	.08	.09	.41	.50	.58	.04	120	80
JUN 10...	2490	3.39	57.1	.08	.06	.87	.93	1.0	.14	230	40
JUL 08...	1680	2.28	34.5	.06	.22	1.1	1.3	1.4	.05	160	60
AUG 04...	1200	1.63	22.7	.07	.05	.55	.60	.67	.12	130	30

06386000 LANCE CREEK AT SPENCER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)
MAR 05...	0900	110	0	2	1	0	10	10	2	0	0
APR 07...	0915	120	--	0	--	0	--	10	--	10	--
JUL 08...	1430	2900	--	3	--	0	--	10	--	10	--

DATE	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
MAR 05...	10	1	670	100	7	50	50	700	620	.0
APR 07...	10	--	720	<100	--	60	--	480	--	.0
JUL 08...	20	--	3700	<100	--	60	--	250	--	.0

DATE	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
MAR 05...	.0	2	2	<50	3	1	0	.9	30	10
APR 07...	--	2	--	<50	--	1	--	--	10	--
JUL 08...	--	0	--	<50	--	1	--	--	50	--

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
DEC 03...	0915	2.0	E.05	43	.01
MAR 05...	0900	.5	E.05	14	.00
APR 07...	0915	8.0	E.20	22	.01
MAY 05...	0900	11.5	E.10	6	.00

E Estimate.

06386500 CHEYENNE RIVER NEAR SPENCER, WY

LOCATION.--Lat 43°25', long 104°08', in N½ sec.25, T.40 N., R.61 W., Niobrara County, Hydrologic Unit 10120106, at former gaging station, at old highway bridge, 1.8 mi (2.9 km) downstream from Robbers Roost Creek, 7.5 mi (12.1 km) northeast of Spencer, and 30 mi (48 km) south of Newcastle.

DRAINAGE AREA.--5,270 mi² (13,650 km²), approximately.

PERIOD OF RECORD.--Water years 1951-54, 1969-70, 1972 to current year.

REMARKS.--Published as South Fork Cheyenne River near Spencer prior to October 1951.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT 01...	1100	.00	--	--	--	--	--	--	--	--	--
NOV 05...	0910	.00	--	--	--	--	--	--	--	--	--
DEC 03...	1030	.00	--	--	--	--	--	--	--	--	--
JAN 07...	1000	.00	--	--	--	--	--	--	--	--	--
FEB 04...	1200	.00	--	--	--	--	--	--	--	--	--
MAR 05...	1010	E.20	5000	7.5	.0	1	9.7	B4	1800	1400	420
APR 07...	1030	E.50	5500	8.0	9.0	8	11.8	310	1200	950	290
MAY 05...	1030	E.20	6200	8.1	13.0	4	11.0	160	1500	1200	330
JUN 10...	1030	9.7	2300	8.0	22.0	50	7.7	80	540	290	130
JUL 08...	1600	18	1100	8.1	30.0	360	6.4	B2000	220	84	56
AUG 04...	1200	16	1800	7.9	24.5	8	7.5	B110	490	340	130
SEP 01...	1530	.00	--	--	--	--	--	--	--	--	--
29...	0900	.00	--	--	--	--	--	--	--	--	--

B Results based on colony count outside the acceptable range (non-ideal colony count).
E Estimate.

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
OCT 01...	--	--	--	--	--	--	--	--	--	--	--
NOV 05...	--	--	--	--	--	--	--	--	--	--	--
DEC 03...	--	--	--	--	--	--	--	--	--	--	--
JAN 07...	--	--	--	--	--	--	--	--	--	--	--
FEB 04...	--	--	--	--	--	--	--	--	--	--	--
MAR 05...	180	1200	12	13	509	0	417	3600	130	.4	11
APR 07...	120	720	9.0	12	328	0	269	2300	85	.4	7.2
MAY 05...	160	1100	12	15	405	0	332	3400	120	.4	3.6
JUN 10...	53	370	6.9	14	314	0	258	990	41	.6	13
JUL 08...	20	150	4.4	8.0	168	0	138	380	21	.5	7.1
AUG 04...	39	220	4.3	11	182	0	149	730	29	.6	9.3
SEP 01...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--

06386500 CHEYENNE RIVER NEAR SPENCER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED BORON (B) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)
OCT											
01...	--	--	--	--	--	--	--	--	--	--	--
NOV											
05...	--	--	--	--	--	--	--	--	--	--	--
DEC											
03...	--	--	--	--	--	--	--	--	--	--	--
JAN											
07...	--	--	--	--	--	--	--	--	--	--	--
FEB											
04...	--	--	--	--	--	--	--	--	--	--	--
MAR											
05...	5810	7.90	3.14	.02	.14	.96	1.1	1.1	.00	390	20
APR											
07...	3700	5.03	5.00	.08	.08	.68	.76	.84	.04	240	10
MAY											
05...	5330	7.25	2.88	.03	.11	.99	1.1	1.1	.02	390	30
JUN											
10...	1770	2.41	46.4	.11	.18	.42	.60	.71	.08	180	40
JUL											
08...	726	.99	35.3	.33	.25	.00	.17	.50	.06	90	10
AUG											
04...	1260	1.71	54.4	.01	.06	.82	.88	.89	.05	170	20
SEP											
01...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--

DATE	TOTAL ALUM-INUM (AL) (UG/L)	SUS-PENDED ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	SUS-PENDED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)
MAR												
05...	70	70	0	2	0	2	10	10	0	10	9	1
APR												
07...	220	220	0	0	0	0	20	10	10	10	9	1
JUL												
08...	33000	33000	0	11	10	1	0	0	0	<10	<9	1

DATE	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)
MAR											
05...	0	0	0	20	19	1	290	150	150	3	140
APR											
07...	10	10	0	10	8	2	340	<100	<98	2	90
JUL											
08...	40	40	0	60	54	6	42000	<100	<98	2	60

DATE	SUS-PENDED LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	SUS-PENDED MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)
MAR											
05...	0	140	2200	0	2300	.0	.0	.0	3	1	2
APR											
07...	0	90	490	80	410	.0	.0	.0	2	2	0
JUL											
08...	30	30	590	590	0	.1	.1	.0	1	0	2

DATE	TOTAL NICKEL (NI) (UG/L)	SUS-PENDED NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
MAR											
05...	100	94	6	0	0	0	1.5	20	10	10	12
APR											
07...	<50	<48	2	0	0	0	.5	10	0	10	6.8
JUL											
08...	100	96	4	2	0	2	.0	210	210	0	12

06392900 BEAVER CREEK AT MALLO CAMP, NEAR FOUR CORNERS, WY

LOCATION.--Lat 44°05'04", long 104°03'41", in NE¼NE¼ sec.4, T.47 N., R.60 W., Weston County, Hydrologic Unit 10120107, between Forest Service Road 811 and right bank in Mallo Campgrounds, 300 ft (91 m) upstream from mouth, 800 ft (244 m) upstream from dam on Stockade Beaver Creek, and 3.8 mi (6.1 km) east of Four Corners.

DRAINAGE AREA.--10.3 mi² (26.7 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,030 ft (1,840 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21 ft³/s (0.595 m³/s) Apr. 26, 1975, gage height, 5.40 ft (1.646 m); minimum daily, 0.42 ft³/s (0.012 m³/s) Sept. 29, 30, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5.5 ft³/s (0.156 m³/s) Mar. 8; maximum gage height, 5.21 ft (1.588 m) Nov. 22 (backwater from ice), no peak above base of 10 ft³/s (0.28 m³/s); minimum daily discharge, 0.42 ft³/s (0.012 m³/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.6	1.5	1.0	1.1	1.3	1.5	1.5	1.5	1.9	1.1	.62
2	1.5	1.6	2.0	.90	1.1	1.3	1.5	1.4	1.5	1.9	1.1	.68
3	1.5	1.6	1.4	.80	1.1	1.3	1.5	1.3	1.5	1.8	1.1	.68
4	1.5	1.6	1.4	.90	1.1	1.3	1.5	1.3	1.5	1.8	1.1	.68
5	1.6	1.5	1.4	1.0	1.0	1.1	1.5	1.4	1.8	1.8	1.0	.71
6	1.6	1.5	1.4	.90	.90	1.3	1.7	1.4	2.3	1.6	.98	.74
7	1.6	1.5	1.4	.80	1.0	1.7	1.7	1.4	2.1	1.6	.86	.74
8	1.6	1.5	1.5	.70	1.1	1.7	1.7	1.4	2.0	1.6	.77	.80
9	1.6	1.5	1.5	.80	1.2	1.4	1.9	1.4	1.9	1.5	.71	.80
10	1.6	1.5	1.5	1.0	1.2	1.4	1.9	1.4	1.8	1.5	.71	.77
11	1.6	1.4	1.5	1.1	1.1	1.4	1.9	1.4	1.7	1.5	.71	.77
12	1.6	1.4	1.5	1.1	1.2	1.3	2.0	1.6	1.6	1.4	.68	.80
13	1.6	1.4	1.5	1.1	1.1	1.5	2.0	1.6	1.5	1.6	.65	.77
14	1.6	1.5	1.1	1.0	1.1	1.5	2.0	1.5	1.9	1.5	.65	.74
15	1.6	1.5	1.1	1.1	1.1	1.4	1.9	1.6	2.6	1.5	.71	.71
16	1.6	1.5	1.0	1.1	1.2	1.4	1.9	1.5	2.4	1.4	.71	.71
17	1.5	1.5	.70	1.1	1.2	1.4	1.9	1.6	2.2	1.4	.62	.68
18	1.5	1.5	.80	1.1	1.2	1.5	1.9	1.5	2.2	1.3	.59	.62
19	1.5	1.5	.80	1.1	1.2	1.5	1.8	1.5	2.1	1.3	.62	.56
20	1.5	1.5	.80	1.1	1.3	1.5	1.6	1.5	2.0	1.3	.62	.56
21	1.5	1.5	.90	1.2	1.3	1.5	1.6	2.0	2.1	1.3	.68	.50
22	1.5	1.5	.90	1.1	1.3	1.5	1.6	1.9	2.2	1.3	.68	.48
23	1.5	1.5	.90	1.2	1.3	1.5	1.6	1.8	2.2	1.3	.65	.48
24	1.6	1.5	.90	1.1	1.3	1.5	1.6	1.6	2.1	1.2	.65	.48
25	1.5	1.5	1.0	1.1	1.3	1.5	1.6	1.5	2.1	1.2	.65	.44
26	1.5	1.5	1.0	1.0	1.3	1.4	1.5	1.5	2.1	1.2	.65	.48
27	1.6	1.5	1.0	1.1	1.3	1.5	1.5	1.5	2.0	1.2	.65	.46
28	1.6	1.4	1.0	1.2	1.3	1.5	1.5	1.5	2.0	1.1	.68	.44
29	1.6	1.3	1.1	1.1	1.3	1.5	1.5	1.5	2.0	1.1	.68	.42
30	1.6	1.1	1.0	1.1	---	1.5	1.5	1.5	1.9	1.1	.65	.42
31	1.6	---	1.0	1.1	---	1.5	---	1.5	---	1.1	.59	---
TOTAL	48.2	44.4	36.50	32.00	34.20	44.6	50.8	47.0	58.8	44.3	23.20	18.74
MEAN	1.55	1.48	1.18	1.03	1.18	1.44	1.69	1.52	1.96	1.43	.75	.62
MAX	1.6	1.6	2.0	1.2	1.3	1.7	2.0	2.0	2.6	1.9	1.1	.80
MIN	1.4	1.1	.70	.70	.90	1.1	1.5	1.3	1.5	1.1	.59	.42
AC-FT	96	88	72	63	68	88	101	93	117	88	46	37

CAL YR 1975 TOTAL 693.20 MEAN 1.90 MAX 6.9 MIN .70 AC-FT 1370
WTR YR 1976 TOTAL 482.74 MEAN 1.32 MAX 2.6 MIN .42 AC-FT 958

06392950 STOCKADE BEAVER CREEK NEAR NEWCASTLE, WY

LOCATION.--Lat 43°51'30", long 104°06'23", in SW¼SE¼ sec.19, T.45 N., R.60 W., Weston County, Hydrologic Unit 10120107, on left bank at downstream side of bridge on county highway, 0.6 mi (1.0 km) upstream from South Draw, 2.5 mi (4.0 km) upstream from LAK Reservoir Dam, and 4.7 mi (7.6 km) east of Newcastle.

DRAINAGE AREA.--107 mi^2 (277 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,455 ft (1,358 m), from topographic map.

REMARKS.--Records good. A few small diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39 ft^3/s (1.10 m^3/s) Apr. 7, 1975, gage height, 6.72 ft (2.048 m); maximum gage height, 7.91 ft (2.411 m) Jan. 12, 1975 (backwater from ice); minimum daily discharge, 8.9 ft^3/s (0.252 m^3/s) for many days in 1975 and 1976.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 22 ft^3/s (0.623 m^3/s) June 15; maximum gage height, 7.45 ft (2.271 m) Jan. 4 (backwater from ice); minimum daily discharge, 8.9 ft^3/s (0.252 m^3/s) June 4-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12	15	14	13	14	14	13	12	10	14	11	13
2	11	15	15	13	14	14	14	12	9.8	14	11	12
3	11	15	14	12	14	14	13	12	9.4	14	11	12
4	11	15	15	12	12	14	14	12	8.9	13	11	12
5	12	15	14	14	11	14	14	11	8.9	13	10	12
6	11	15	14	14	10	14	14	11	8.9	13	10	12
7	11	15	14	12	13	14	15	11	8.9	13	10	13
8	11	14	14	12	14	14	14	11	8.9	13	9.8	13
9	12	14	15	13	15	14	14	11	8.9	13	9.8	12
10	12	14	15	14	14	14	14	11	8.9	12	10	11
11	12	15	15	14	14	14	13	9.6	8.9	12	11	10
12	12	15	16	14	14	14	14	10	9.8	12	10	11
13	12	15	16	13	14	14	14	10	11	12	10	10
14	12	15	16	13	15	14	14	9.6	18	12	10	10
15	12	14	15	14	14	15	12	9.4	22	13	12	10
16	12	14	15	14	14	14	12	9.4	16	13	11	9.8
17	12	14	14	14	14	15	13	9.4	14	13	9.8	9.8
18	12	14	13	14	14	14	13	9.4	14	13	9.4	9.8
19	12	14	14	14	14	14	12	9.1	14	13	9.1	9.8
20	13	13	14	14	13	14	12	9.1	14	13	9.4	10
21	13	13	14	14	13	14	12	11	14	13	9.6	10
22	13	14	14	14	13	14	12	11	14	13	10	9.8
23	13	14	14	14	13	14	12	10	16	13	10	11
24	13	14	14	14	13	14	12	10	15	12	12	11
25	13	14	14	13	13	14	12	9.8	14	12	12	11
26	14	14	14	12	14	14	13	9.8	14	12	13	11
27	14	14	14	14	15	14	13	9.1	14	13	13	11
28	15	14	14	14	14	14	13	9.1	14	13	12	11
29	15	13	14	14	14	14	12	9.1	14	12	12	11
30	15	12	14	14	---	13	13	10	14	10	12	10
31	15	---	14	14	---	13	---	12	---	11	13	---
TOTAL	388	426	446	418	393	434	392	319.9	376.2	392	333.9	329.0
MEAN	12.5	14.2	14.4	13.5	13.6	14.0	13.1	10.3	12.5	12.6	10.8	11.0
MAX	15	15	16	14	15	15	15	12	22	14	13	13
MIN	11	12	13	12	10	13	12	9.1	8.9	10	9.1	9.8
AC-FT	770	845	885	829	780	861	778	635	746	778	662	653

CAL YR 1975 TOTAL 4740.1 MEAN 13.0 MAX 26 MIN 8.9 AC-FT 9400
WTR YR 1976 TOTAL 4648.0 MEAN 12.7 MAX 22 MIN 8.9 AC-FT 9220

06394000 BEAVER CREEK NEAR NEWCASTLE, WY

LOCATION.--Lat 43°32'07", long 104°07'02", in NW¼ sec.18, T.41 N., R.60 W., Weston County, Hydrologic Unit 10120107, at highway bridge, 2.2 mi (3.5 km) downstream from Sheep Creek, and 23 mi (37 km) south of Newcastle.

DRAINAGE AREA.--1,320 mi^2 (3,420 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February to September 1943, October 1944 to current year.

REVISED RECORDS.--WSP 1209: 1943, 1946, 1948-49.

GAGE.--Water-stage recorder. Altitude of gage is 3,660 ft (1,116 m), from topographic map. Prior to Nov. 1, 1945, nonrecording gage at same site and datum.

REMARKS.--Records fair except October to March, which are poor. There are many small reservoirs above station used for sotrage of stock and irrigation water, total capacity, about 11,000 acre-ft (13.6 hm^3). Diversions for irrigation of about 4,900 acres (19.8 km^2) above station.

AVERAGE DISCHARGE.--33 years (water years 1945-76), 32.7 ft^3/s (0.926 m^3/s), 23,690 acre-ft/yr (29.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft^3/s (337 m^3/s) June 16, 1962, gage height, 19.98 ft (6.090 m); no flow at times in 1943, 1945, 1950, 1952-61, 1966, 1974.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft^3/s (14.2 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 17	1200	*1280	36.2	10.98	3.347
July 24	1530	547	15.5	6.93	2.112

Minimum daily discharge, 0.01 ft^3/s (<0.001 m^3/s) Sept. 20-23, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.6	10	8.5	5.2	11	159	24	24	49	6.1	201	.19
2	4.4	10	12	4.5	12	94	21	20	96	5.7	96	.10
3	4.9	10	14	4.2	11	63	19	17	55	5.4	30	.19
4	4.4	10	16	4.6	8.9	48	18	13	26	75	22	.66
5	2.6	10	15	5.5	7.3	38	18	10	15	104	15	.84
6	1.9	10	13	4.8	7.5	29	17	4.4	8.7	24	10	1.0
7	2.4	10	13	4.0	9.4	24	12	2.1	7.7	12	8.7	.43
8	2.9	10	12	4.4	12	28	7.7	1.9	5.1	8.0	5.7	.24
9	4.1	10	11	5.1	18	31	9.1	1.8	2.7	85	6.7	.14
10	3.9	9.3	10	5.2	24	38	9.1	3.1	2.7	33	7.7	.10
11	3.5	8.3	9.5	5.2	29	40	9.1	1.8	3.3	14	6.7	.10
12	3.3	7.4	10	5.9	36	29	9.1	2.4	1.9	7.4	5.4	.14
13	3.5	11	8.4	5.7	43	75	9.6	1.4	1.4	5.4	5.7	.14
14	4.0	13	7.1	6.2	53	215	9.6	1.0	10	6.4	5.1	.14
15	4.6	12	7.7	7.1	51	127	10	1.6	170	4.6	3.1	.10
16	5.1	11	6.4	8.4	46	149	9.1	1.6	360	2.7	3.1	.10
17	5.6	10	5.7	9.5	45	149	6.7	1.2	1110	2.7	2.2	.10
18	5.3	8.8	7.2	10	41	116	6.7	.80	344	2.1	1.6	.07
19	4.9	7.2	8.2	8.9	37	130	20	.90	142	1.4	1.4	.04
20	4.6	5.5	8.5	9.1	34	250	51	.90	125	1.5	.94	.01
21	4.5	6.7	8.8	9.4	35	290	30	2.7	82	1.6	.75	.01
22	4.2	8.9	8.5	10	44	133	18	1.5	57	1.6	.50	.01
23	4.8	9.9	8.0	9.6	55	95	16	4.2	45	168	.58	.01
24	7.7	9.0	7.6	8.4	63	83	10	4.9	56	485	.75	.04
25	11	8.4	8.4	7.3	71	109	7.7	2.7	45	130	1.5	.14
26	14	7.4	8.0	6.9	76	98	6.7	33	28	38	1.3	.58
27	12	8.5	8.4	7.8	93	68	7.4	22	20	28	.84	.14
28	11	8.3	8.0	8.8	104	52	7.7	12	14	16	.58	.07
29	10	7.0	7.7	9.7	143	44	6.4	7.0	11	16	.43	.04
30	10	5.7	8.1	8.3	---	33	5.4	4.6	8.4	11	.36	.01
31	10	---	6.6	9.4	---	26	---	6.4	---	14	.24	---
TOTAL	178.7	273.3	291.3	219.1	1220.1	2863	411.1	211.90	2901.9	1315.6	445.87	5.88
MEAN	5.76	9.11	9.40	7.07	42.1	92.4	13.7	6.84	96.7	42.4	14.4	.20
MAX	14	13	16	10	143	290	51	33	1110	485	201	1.0
MIN	1.9	5.5	5.7	4.0	7.3	24	5.4	.80	1.4	1.4	.24	.01
AC-FT	354	542	578	435	2420	5680	815	420	5760	2610	884	12

CAL YR 1975 TOTAL 13873.80 MEAN 38.0 MAX 594 MIN 1.7 AC-FT 27520
WTR YR 1976 TOTAL 10337.75 MEAN 28.2 MAX 1110 MIN .01 AC-FT 20500

06394000 BEAVER CREEK NEAR NEWCASTLE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1946-47, 1950-57, 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT 07...	1140	2.4	11.0	1800	1700	510	140	970	9.8	7.0	140
NOV 03...	1705	10	7.0	1800	1700	510	130	750	7.7	5.8	180
DEC 01...	1625	A8.5	.0	1900	1700	550	120	430	4.3	5.8	240
JAN 13...	1025	A5.7	.0	1800	1600	520	120	190	2.0	4.7	290
FEB 09...	1720	A18	.0	1800	1600	500	130	580	6.0	6.3	290
MAR 05...	0930	A38	.0	970	870	280	70	360	5.0	5.6	120
APR 05...	1750	18	13.0	1500	1400	430	110	600	6.7	5.6	170
MAY 18...	0920	.84	16.5	1800	1600	440	180	890	9.0	9.1	260
JUN 15...	2115	225	14.0	320	230	82	28	200	4.9	5.6	110
29...	0940	13	19.0	1000	870	230	100	560	7.8	7.7	160
JUL 29...	1750	18	25.5	990	920	260	83	500	6.9	6.7	87
AUG 31...	1050	.24	21.0	2000	1900	510	170	820	8.0	7.4	140

A Daily mean discharge.

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 07...	0	115	2000	1300	1.1	1.0	5010	6.81	32.5	.00	.01
NOV 03...	0	148	1700	1100	1.0	6.2	4340	5.90	117	.00	.06
DEC 01...	0	197	1700	570	1.1	11	3540	4.81	81.2	.11	.02
JAN 13...	0	238	1700	170	1.1	14	2870	3.90	44.2	.25	.02
FEB 09...	0	238	1700	680	1.0	12	3800	5.17	185	.20	.03
MAR 05...	0	98	1100	430	.9	7.3	2290	3.11	235	.16	.04
APR 05...	0	139	1500	820	1.0	6.7	3550	4.83	173	.11	.03
MAY 18...	0	213	2200	990	1.4	2.7	4790	6.51	10.9	.07	.04
JUN 15...	0	90	420	160	.6	9.7	961	1.31	584	.54	.77
29...	0	131	1200	620	1.2	5.8	2820	3.84	99.0	.00	.05
JUL 29...	0	71	1200	520	1.0	4.1	2580	3.51	125	.02	.08
AUG 31...	0	115	2300	990	1.4	.6	4850	6.60	3.14	.61	.02

06395000 CHEYENNE RIVER AT EDGEMONT, SD

LOCATION.--Lat 43°18'20", long 103°49'14", in SW¼SE¼SE¼ sec.36, T.8 S., R.2 E., Fall River County, Hydrologic Unit 10120106, on right bank at downstream side of bridge on U.S. Highway 18, at Edgemont, 300 ft (91 m) downstream from Burlington Northern Railroad bridge, and 600 ft (183 m) upstream from Cottonwood Creek.

DRAINAGE AREA.--7,143 mi² (18,500 km²).

PERIOD OF RECORD.--June 1903 to November 1906 (no winter records), April 1928 to February 1933, October 1946 to current year.

REVISED RECORDS.--WSP 1086: Drainage area. WSP 1116: 1947.

GAGE.--Water-stage recorder. Datum of gage is 3,414.56 ft (1,040.758 m) above mean sea level. Prior to Dec. 1, 1906, nonrecording gage 20 ft (6 m) upstream at datum 0.7 ft (0.21 m) lower. Apr. 11, 1928, to Feb. 28, 1933, Oct. 4, 1946, to Oct. 23, 1947, and Jan. 11, 1961, to Apr. 24, 1963, nonrecording gage, and Apr. 25, 1963, to Sept. 30, 1972, water-stage recorder all at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for winter periods, which are poor. Many small reservoirs above station used for stock and irrigation water, total capacity, about 45,000 acre-ft (55.5 hm³).

AVERAGE DISCHARGE.--34 years, 99.5 ft³/s (2.818 m³/s), 72,090 acre-ft/yr (88.9 hm³/yr); median of yearly mean discharges, 76 ft³/s (2.15 m³/s), 55,100 acre-ft/yr (68 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,800 ft³/s (391 m³/s) May 25, 1971, gage height, 10.57 ft (3.222 m), present datum; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 12, 1920, reached a stage of 13.0 ft (3.96 m) and May 1, 1922, 14.0 ft (4.27 m), present datum, from floodmarks at railroad bridge.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,830 ft³/s (51.8 m³/s) June 18, gage height, 5.27 ft (1.606 m); minimum, 0.12 ft³/s (0.003 m³/s) Sept. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.48	11	4.0	6.0	6.0	20	15	10	767	24	30	.48
2	.72	12	10	4.0	6.0	10	14	9.6	451	22	786	.25
3	.56	12	15	3.0	5.0	5.0	15	13	343	18	224	.12
4	.48	13	15	3.0	3.0	5.0	14	11	223	15	88	.19
5	.64	14	12	5.0	2.0	5.0	10	8.4	120	65	43	.18
6	.64	14	14	3.0	2.0	7.0	16	13	73	83	27	.12
7	.56	14	14	2.0	3.0	8.0	16	12	43	31	21	.19
8	.48	14	16	2.0	5.0	10	13	6.6	23	73	16	.25
9	.80	7.0	20	4.0	10	12	9.6	4.2	18	27	13	.64
10	.80	6.0	18	5.0	9.0	15	11	3.0	16	54	11	.48
11	.72	5.0	15	5.0	9.0	20	10	3.6	13	26	9.6	.40
12	.80	1.8	10	5.0	10	18	12	4.8	12	11	8.4	.48
13	.72	6.0	8.0	4.0	12	15	14	3.0	13	9.6	7.2	.40
14	1.2	19	5.0	4.0	15	15	15	3.6	32	8.4	11	.33
15	2.1	23	5.0	5.0	15	15	16	7.2	96	12	6.6	.33
16	2.4	22	4.0	6.0	12	18	22	5.4	242	8.4	13	.33
17	2.1	22	4.0	7.0	11	20	16	3.6	1620	4.8	8.4	.25
18	2.4	10	5.0	7.0	11	30	14	3.6	1550	2.7	5.4	.19
19	4.8	8.0	6.0	6.0	10	35	12	2.7	513	1.9	2.7	3.6
20	6.0	4.5	7.0	4.0	10	50	13	3.9	318	18	1.9	.56
21	6.6	5.0	8.0	5.0	10	235	27	13	238	26	1.3	.33
22	7.2	6.0	8.0	6.0	12	117	18	8.1	163	6.0	1.0	.33
23	13	2.0	7.0	6.0	15	99	11	25	114	4.2	.72	.33
24	13	2.0	9.0	4.0	20	81	11	20	170	112	.56	.19
25	9.6	2.0	10	3.0	25	70	13	24	157	383	.56	.40
26	11	2.0	9.0	2.0	30	81	16	40	114	90	.48	.33
27	12	2.0	9.0	2.0	50	79	23	68	64	27	.40	.33
28	13	2.0	8.0	4.0	30	53	18	30	49	20	.33	.25
29	18	1.5	9.0	6.0	25	38	14	12	38	15	.32	.25
30	25	1.5	9.0	6.0	---	26	13	12	28	11	.25	.19
31	12	---	8.0	6.0	---	17	---	307	---	10	.48	---
TOTAL	169.80	264.3	301.0	140.0	383.0	1229.0	441.6	691.3	7621	1219.0	1339.60	12.70
MEAN	5.48	8.81	9.71	4.52	13.2	39.6	14.7	22.3	254	39.3	43.2	.42
MAX	25	23	20	7.0	50	235	27	307	1620	383	786	3.6
MIN	.48	1.5	4.0	2.0	2.0	5.0	9.6	2.7	12	1.9	.25	.12
AC-FT	337	524	597	278	760	2440	876	1370	15120	2420	2660	25

CAL YR 1975 TOTAL 13927.67 MEAN 38.2 MAX 642 MIN 0 AC-FT 27630
WTR YR 1976 TOTAL 13812.30 MEAN 37.7 MAX 1620 MIN .12 AC-FT 27400

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY

LOCATION.--Lat 43°59'04", long 105°23'16", in NW¼NE¼NE¼ sec.9, T.46 N., R.71 W., Campbell County, Hydrologic Unit 10120201, on right bank 200 ft (61 m) downstream from bridge on county road, 1.2 mi (1.9 km) downstream from Rattlesnake Creek, 10.0 mi (16.1 km) southwest of Piney, 15.5 mi (24.9 km) north of Reno Junction, and 22 mi (35 km) south of Gillette.

DRAINAGE AREA.--495 mi² (1,282 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to September 1976.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,540 ft (1,384 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. No diversions above station. Several small stockwater reservoirs above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 60 ft³/s (1.70 m³/s) Feb. 9, gage height, 3.08 ft (0.939 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1			0	0	.02	.06	.10	.08	.01	0		
2			0	0	.02	.03	.08	.07	.03	0		
3			.01	0	.01	.03	.07	.05	.02	.01		
4			.01	0	0	.03	.05	.03	.01	0		
5			.01	0	0	.06	.02	.01	.01	0		
6			.01	0	0	.09	.02	.01	.01	0		
7			0	0	0	.12	.02	.01	0	0		
8			0	0	.03	.14	.02	.01	0	0		
9			0	0	25	.17	.02	.01	0	0		
10			0	0	18	.22	.02	.01	0	0		
11			0	0	7.9	.17	.02	.01	0	0		
12			0	0	2.2	.10	.03	.01	0	0		
13			0	0	1.2	.13	.03	.01	0	0		
14			0	0	.76	.09	.02	.01	.07	0		
15			0	0	.40	.11	.02	.02	.15	0		
16			0	0	.40	.17	.05	.02	.07	0		
17			0	0	.21	.30	.12	.02	.10	0		
18			0	0	.21	.35	.18	.02	.08	0		
19			0	0	.15	.40	.21	.01	.46	0		
20			0	0	.15	.35	.35	.01	.35	0		
21			0	0	.12	.40	.30	.02	.18	0		
22			0	0	.12	.40	.25	.01	.15	0		
23			0	0	.12	.35	.18	.03	.30	0		
24			0	0	.12	.30	.12	.05	.18	0		
25			0	0	.12	.30	.10	.02	.10	0		
26			0	0	.12	.30	.07	.02	.10	0		
27			0	0	.12	.30	.10	.01	.07	0		
28			0	.01	.10	.25	.10	.01	.04	0		
29			0	.02	.08	.25	.08	.01	.01	0		
30			0	.02	---	.15	.07	.03	0	0		
31		---	0	.02	---	.12	---	.02	---	0		---
TOTAL	0	0	.04	.07	57.68	6.24	2.82	.66	2.50	.01	0	0
MEAN	0	0	.001	.002	1.99	.20	.094	.021	.083	.0003	0	0
MAX	0	0	.01	.02	25	.40	.35	.08	.46	.01	0	0
MIN	0	0	0	0	0	.03	.02	.01	0	0	0	0
AC-FT	0	0	.08	.1	114	12	5.6	1.3	5.0	.02	0	0

WTR YR 1976 TOTAL 70.02 MEAN .19 MAX 25 MIN 0 AC-FT 139

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1976.

REMARKS.--No flow was observed Oct. 3, Jan. 8, Feb. 5, July 9, Aug. 5, Sept. 2, 30.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV 06...	1215	<.01	5000	8.1	6.0	2	11.8	1.8	2000	1800
DEC 04...	1345	A.01	5200	7.7	4.0	10	8.8	4.5	1900	1500
MAR 06...	1500	A.09	3600	7.3	1.0	6	9.7	5.0	1400	1200
APR 08...	1700	.02	4100	7.8	9.0	10	10.0	1.9	1600	1300
28...	1415	.08	3800	--	5.0	6	--	--	--	--
MAY 06...	1430	.01	5200	7.8	16.5	6	9.1	2.9	1700	1400
AUG 09...	1630	<.01	8000	8.4	25.0	20	10.0	--	3500	3300

A Daily mean discharge.

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
NOV 06...	370	250	520	5.1	40	222	0	182	2800	29
DEC 04...	370	230	510	5.1	23	410	0	336	2500	38
MAR 06...	310	160	350	4.0	17	284	0	233	1900	19
APR 08...	360	180	380	4.1	18	362	0	297	2100	22
28...	--	--	--	--	--	--	--	--	--	--
MAY 06...	360	200	470	4.9	17	335	0	275	2400	23
AUG 09...	530	530	1200	8.8	45	225	0	185	5400	55

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)
NOV 06...	.3	1.2	4120	5.60	.11	.02	--	.00	--	1.2
DEC 04...	.6	8.8	3880	5.28	.10	.07	--	.00	--	1.1
MAR 06...	.4	7.3	2900	3.94	.70	.03	--	.04	--	1.5
APR 08...	.6	5.1	3240	4.41	.18	.02	--	.05	--	.76
28...	--	--	--	--	--	--	--	--	--	--
MAY 06...	.6	4.1	3640	4.95	.10	.07	--	.12	--	.98
AUG 09...	.4	.3	7870	10.7	.21	.02	.01	.00	.02	2.7

DATE	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED-PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
NOV 06...	--	1.2	--	1.2	.04	--	810	20	--	--
DEC 04...	--	1.1	--	1.2	.04	--	150	70	--	--
MAR 06...	--	1.5	--	1.5	.08	--	120	110	--	--
APR 08...	--	.81	--	.83	.03	--	110	40	--	--
28...	--	--	--	--	--	--	--	--	--	--
MAY 06...	--	1.1	--	1.2	.03	--	240	70	--	--
AUG 09...	1.3	2.7	1.3	2.7	.12	.04	260	30	15000	.4

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)
NOV										
06...	1215	80	--	1	--	0	--	20	--	4
MAR										
06...	1500	70	--	2	--	0	--	10	--	0
APR										
08...	1700	40	--	0	--	0	--	10	--	10
AUG										
09...	1630	2500	10	3	1	10	10	10	0	20

DATE	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
NOV										
06...	--	10	--	340	100	--	150	--	90	--
MAR										
06...	--	10	--	840	100	--	100	--	1000	--
APR										
08...	--	10	--	1000	<100	--	90	--	1400	--
AUG										
09...	10	20	1	4700	200	0	310	300	510	240

DATE	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
NOV										
06...	.0	--	2	--	50	--	0	--	100	--
MAR										
06...	.0	--	2	--	<50	--	0	--	40	--
APR										
08...	.0	--	3	--	<50	--	0	--	10	--
AUG										
09...	.0	.0	3	4	100	4	0	0	60	20

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
FEB					
09...	1145	.0	6.6	30	.53
09...	1415	.0	59	102	16
10...	1555	.0	7.0	51	.96
13...	1000	.0	.97	151	.40
13...	1145	1.5	1.2	38	.12
APR					
15...	1105	16.0	.02	84	.00
28...	1415	5.0	.08	48	.01
MAY					
20...	1100	16.0	.01	49	.00

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 9.76
TIME	1630
TOTAL CELLS/ML	15000
DIVERSITY: DIVISION	1.8
.CLASS	1.9
..ORDER	2.7
...FAMILY	2.8
....GENUS	3.3

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	370	3
....KIRCHNERIELLA	*	0
...SCENEDESMACEAE		
....SCENEDESMUS	1000	7
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CARTERIA	2700#	19
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	120	1
..PENNALES		
...CYMBELLACEAE		
....EPITHEMIA	*	0
...NAVICULACEAE		
....GYROSIGMA	240	2
....NAVICULA	300	3
...NITZSCHIACEAE		
....NITZSCHIA	120	1
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	1800	13
....GOMPHOSPHAERIA	3600#	21
..OSCILLATORIALES		
...NOSTOCACEAE		
....ANABAENA	*	0
...OSCILLATORIACEAE		
....OSCILLATORIA	2400#	17
EUGLENOPHYTA (EUGLENOIDS)		
.CRYPTOPHYCEAE		
..CRYPTOMONIDALES		
...CRYPTOCHRYSIDACEAE		
....CHROOMONAS	*	0
...CRYPTOMONODACEAE		
....CRYPTOMONAS	300	3
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	790	6
....LEPOCINCLIS	*	0
....TRACHELOMONAS	550	4
PYRRHOPHYTA (FIRE ALGAE)		
.DINOPHYCEAE		
..PERIDINIALES		
...GLENODINIACEAE		
....GLENODINIUM	730	5

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06425720 BELLE FOURCHE RIVER BELOW RATTLESNAKE CREEK, NEAR PINEY, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

AUG. 9, 1976
1630 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHAROPHYCEAE	STONEWORTS
	..CHARALES	
	...CHARACEAE	
O	....CHARA	
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....CALONEIS	
O	....GYROSIGMA	
O	....NAVICULA	
	...NITZSCHIACEAE	
O	....CYLINDROTHECA	
O	....NITZSCHIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
O	....CYLINDROSPERMUM	
	...OSCILLATORIACEAE	
E	....LYNGBYA	
O	....SPIRULINA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....EUGLENA	
O	....TRACHELOMONAS	

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: STAIN & SCREEN, 50-X & 200-X MICROSCOPES

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY

LOCATION.--Lat 44°01'30", long 105°19'35", in NW¼SE¼NE¼ sec.25, T.47 N., R.71 W., Campbell County, Hydrologic Unit 10120201, on left bank 4.1 mi (6.6 km) upstream from Dry Creek, 4.8 mi (7.7 km) downstream from Coal Creek, 6.0 mi (9.7 km) southwest of Piney, and 20 mi (32 km) southeast of Gillette.

DRAINAGE AREA.--594 mi^2 (1,538 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1975 to September 1976.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,460 ft (1,359 m), from topographic map.

REMARKS.--Records poor. Several small stockwater and soil conservation reservoirs above station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 176 ft^3/s (4.98 m^3/s) Feb. 10, gage height, 5.8 ft (1.77 m), from floodmark; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	.01	0	0	.05	.06	.03	.08	.08	0	6.8	0
2	0	.01	.01	0	.06	.03	.03	.08	.08	0	.36	0
3	0	.01	.02	0	.04	.02	.03	.05	.03	0	.08	0
4	0	.01	.03	0	.02	.02	.03	.05	.02	0	.02	0
5	0	.01	.02	0	.01	.03	.03	.05	.03	0	.01	0
6	0	.01	.01	0	0	.03	.03	.05	.01	0	0	0
7	0	.01	.01	0	.01	.03	.05	.05	.01	0	0	0
8	0	.01	.01	0	.20	.08	.05	.03	.01	0	0	0
9	0	.01	.01	0	53	.15	.05	.03	.01	.01	0	0
10	0	.01	.01	0	119	.15	.11	.03	0	.01	0	.01
11	0	.01	.01	0	37	.15	.11	.02	0	0	0	.01
12	0	.05	.01	0	17	.08	.05	.02	.01	0	0	.01
13	0	.01	.01	0	8.1	.01	.05	.01	0	0	0	.01
14	0	.01	0	0	8.8	.01	.03	.01	.20	0	0	.02
15	0	.02	0	0	9.1	.01	.03	.01	.36	0	0	.01
16	0	.02	0	0	8.1	.08	.11	.03	10	0	0	.01
17	0	.02	0	0	5.6	.08	.24	.01	2.8	0	0	.01
18	0	.03	0	.01	2.6	.15	.15	.01	1.2	0	0	.01
19	0	.02	0	.02	1.2	.11	.15	.01	.59	.01	0	0
20	0	.01	0	.02	.69	.08	.11	.01	.30	.01	0	0
21	0	0	0	.02	.24	.08	.11	.01	.15	0	0	0
22	0	0	0	.03	.19	.08	.08	.01	.15	0	0	0
23	0	0	0	.03	.15	.05	.05	.02	.43	0	0	0
24	0	0	0	.02	.19	.05	.05	.02	.30	0	0	0
25	0	0	0	0	.15	.08	.05	.03	.15	0	0	0
26	.01	0	0	0	.11	.05	.03	.01	.05	0	0	0
27	.01	0	0	0	.08	.05	.05	.01	.03	0	0	0
28	.01	0	0	.01	.08	.05	.08	.02	.03	0	0	0
29	.01	0	0	.02	.07	.05	.08	.05	.02	0	0	0
30	.01	0	0	.03	---	.03	.08	.05	.01	0	0	0
31	.01	---	0	.04	---	.03	---	.08	---	0	0	---
TOTAL	.06	.30	.16	.25	271.84	1.96	2.13	.95	17.06	.04	7.27	.10
MEAN	.002	.010	.005	.008	9.37	.063	.071	.031	.57	.001	.23	.003
MAX	.01	.05	.03	.04	119	.15	.24	.08	10	.01	6.8	.02
MIN	0	0	0	0	0	.01	.03	.01	0	0	0	0
AC-FT	.1	.6	.3	.5	539	3.9	4.2	1.9	34	.08	14	.2

WTR YR 1976 TOTAL 302.12 MEAN .83 MAX 119 MIN 0 AC-FT 599

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1975 to September 1976.

REMARKS.--No flow was observed Oct. 3, Jan. 8, Aug. 5, Sept. 2, 30.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
DEC 04...	1230	.03	5000	7.4	2.5	5	6.5	2.2	1800	1500
FEB 05...	1500	A.01	650	7.5	.0	15	4.3	5.2	640	450
MAR 06...	1330	.02	1800	7.3	1.0	20	7.8	2.4	710	530
APR 08...	1600	.05	3100	7.9	9.0	6	11.2	2.0	1200	930
29...	0900	.08	3050	--	5.0	3	--	--	--	--
MAY 06...	1330	.05	3600	8.0	13.5	5	11.6	3.7	1300	1100
JUL 09...	1915	.01	2600	8.5	32.0	1	11.9	4.2	1000	950
AUG 09...	1800	<.01	2400	8.7	26.0	4	8.8	--	810	710

A Daily mean discharge.

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
DEC 04...	380	210	470	4.8	30	356	0	292	2400	22
FEB 05...	150	64	140	2.4	18	235	0	193	730	8.8
MAR 06...	170	69	160	2.6	12	210	5	181	870	8.3
APR 08...	280	120	280	3.5	19	318	0	261	1500	12
29...	--	--	--	--	--	--	--	--	--	--
MAY 06...	280	150	340	4.1	15	221	0	181	1900	13
JUL 09...	200	130	270	3.7	19	106	0	87	1500	11
AUG 09...	190	82	240	3.7	17	129	0	106	1200	12

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)
DEC 04...	.3	5.9	3690	5.02	.30	.36	--	.04	--	1.1
FEB 05...	.2	7.2	1240	1.69	.03	.03	--	.09	--	2.4
MAR 06...	.3	7.3	1410	1.92	.08	.02	--	.04	--	1.3
APR 08...	.4	2.0	2370	3.22	.32	.01	--	.02	--	.78
29...	--	--	--	--	--	--	--	--	--	--
MAY 06...	.4	.7	2810	3.82	.38	.06	--	.12	--	.83
JUL 09...	.3	.3	2180	2.96	.06	.07	--	.05	--	1.1
AUG 09...	.4	2.0	1810	2.46	.05	.04	.01	.08	.01	.81

DATE	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED-PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
DEC 04...	--	1.1	--	1.5	.02	--	640	40	--	--
FEB 05...	--	2.5	--	2.5	.12	--	270	600	--	--
MAR 06...	--	1.3	--	1.3	.04	--	180	80	--	--
APR 08...	--	.80	--	.81	.02	--	330	20	--	--
29...	--	--	--	--	--	--	--	--	--	--
MAY 06...	--	.95	--	1.0	.02	--	280	80	--	--
JUL 09...	--	1.1	--	1.2	.02	--	450	80	--	--
AUG 09...	.80	.89	.81	.93	.03	.03	250	30	4900	.4

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)
DEC 04...	1230	60	--	0	--	10	--	10	--	10	--
FEB 05...	1500	50	--	2	--	0	--	<10	--	0	--
APR 08...	1600	70	--	0	--	0	--	<10	--	0	--
JUL 09...	1915	80	30	1	1	0	10	10	1	0	0
AUG 09...	1800	150	10	1	1	10	0	20	1	0	0

DATE	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
DEC 04...	<10	--	370	<100	--	140	--	2600	--	.0
FEB 05...	10	--	1700	<100	--	30	--	2400	--	.0
APR 08...	<10	--	390	<100	--	60	--	110	--	.0
JUL 09...	20	5	120	<100	1	80	80	50	30	.0
AUG 09...	<10	4	160	100	0	40	40	90	20	.0

DATE	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
DEC 04...	--	2	--	50	--	1	--	--	10	--
FEB 05...	--	1	--	<50	--	1	--	--	10	--
APR 08...	--	2	--	<50	--	0	--	--	0	--
JUL 09...	.0	0	2	<50	4	1	1	.0	30	10
AUG 09...	.0	4	4	<50	4	5	5	--	20	10

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM
FEB 09...	1310	.5	59	575	92	--	--	--
10...	1435	.0	110	996	296	--	--	--
APR 15...	1230	17.0	.03	65	.01	--	--	--
29...	0900	5.0	.08	3	.00	--	--	--
MAY 20...	1200	17.0	.01	4	.00	--	--	--
JUN 15...	0830	10.0	.43	102	.12	--	--	--
16...	0900	13.0	15	3370	136	100	--	--
16...	1300	16.0	7.6	1660	34	94	99	100

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	AUG 9.76
TIME	1800
TOTAL CELLS/ML	4900
DIVERSITY: DIVISION	2.1
.CLASS	2.2
..ORDER	2.6
...FAMILY	2.8
....GENUS	3.2

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...MICRACTINIACEAE		
....GOLENKINIA	*	0
...OOCYSTACEAE		
....ANKISTRODESMUS	460	9
....CHLORELLA	430	9
....TETRAEDRON	31	1
....TREUBARIA	120	3
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CARTERIA	*	0
....CHLAMYDOMONAS	370	8
...VOLVOCACEAE		
....GONIUM	250	6
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	31	1
....MELOSIRA	62	2
..PENNALES		
...CYMBELLACEAE		
....CYMBELLA	31	1
...FRAGILARIACEAE		
....FRAGILARIA	*	0
...NAVICULACEAE		
....NAVICULA	220	5
...NITZSCHIACEAE		
....NITZSCHIA	93	2
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	1700#	36
EUGLENOPHYTA (EUGLENOIDS)		
.CRYPTOPHYCEAE		
..CRYPTOMONIDALES		
...CRYPTOMONODACEAE		
....CRYPTOMONAS	280	6
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	310	7
....TRACHELOMONAS	250	6
PYRRHOPHYTA (FIRE ALGAE)		
.DINOPHYCEAE		
..PERIDINIALES		
...PERIDINIACEAE		
....PERIDINIUM	340	7

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06425780 BELLE FOURCHE RIVER ABOVE DRY CREEK, NEAR PINEY, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

AUG. 9, 1976
1800 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHAROPHYCEAE	STONEWORTS
	..CHARALES	
	...CHARACEAE	
E	....CHARA	
	.CHLOROPHYCEAE	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....MASTOGLOIA	
O	....NAVICULA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
	...OSCILLATORIACEAE	
E	....OSCILLATORIA	
	...RIVULARIACEAE	
O	....AMPHITHRIX	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....EUGLENA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY

LOCATION.--Lat 44°17'44", long 104°58'35", in SE¼SW¼ sec.24, T.50 N., R.68 W., Crook County, Hydrologic Unit 10120201, on left bank 150 ft (46 m) upstream from Trail Creek, 1.9 mi (3.1 km) downstream from Donkey Creek, and 2.6 mi (4.2 km) northwest of Moorcroft.

DRAINAGE AREA.--1,670 mi² (4,325 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1943 to September 1970, October 1975 to September 1976.

GAGE.--Water-stage recorder. Datum of gage is 4,119.2 ft (1,255.53 m) above mean sea level (Bureau of Reclamation bench mark). Prior to Mar. 28, 1947, nonrecording gage, and Mar. 28, 1947, to Jan. 16, 1951, water-stage recorder at site 12 mi (19 km) downstream at different datum. Jan. 17, 1951, to September 1970, at site 50 ft (15 m) downstream at datum 0.8 ft (0.24 m) lower.

REMARKS.--Records poor. Numerous small stockwater and soil conservation reservoirs above station. Diversions for irrigation of about 660 acres (267 hm²) above station.

AVERAGE DISCHARGE.--28 years, 20.7 ft³/s (0.586 m³/s), 15,000 acre-ft/yr (18.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,420 ft³/s (125 m³/s) May 27, 1962, gage height, 14.33 ft (4.368 m); no flow at times each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Apr. 7, 1924, reached a stage of 12.6 ft (3.84 m) at site of former gaging station 4.2 mi (6.8 km) upstream at different datum, discharge, 12,500 ft³/s (354 m³/s). Flood in June 1908 reached a stage about 2.5 ft (0.76 m) higher than that of Apr. 7, 1924.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 360 ft³/s (10.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Feb. 10	1800	495	14.0	*8.38	2.554	June 17	0500	*562	15.9	7.84	2.390
June 16	0400	451	12.8	7.05	2.149						

No flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.06	.05	.06	.24	3.3	.93	12	16	1.6	.43	.02
2	.01	.06	.14	.03	.24	2.9	1.1	11	5.8	1.7	83	.02
3	.01	.07	.19	.02	.20	5.2	1.1	5.4	2.3	17	88	0
4	.01	.09	.09	.02	.15	3.3	1.4	3.8	.84	18	14	.02
5	.01	.09	.09	.03	.12	2.5	1.6	3.3	.19	11	6.7	.02
6	.01	.14	0	.02	.10	2.8	.93	2.2	.97	4.8	3.8	.02
7	.01	.19	0	.01	.15	3.1	.66	1.4	1.0	2.8	1.5	.02
8	.01	.19	.09	.02	2.0	3.4	.30	.84	.66	54	.93	0
9	.01	.24	.09	.03	43	3.7	.36	.66	0	38	.36	0
10	.02	.24	.14	.04	344	4.1	.35	.36	0	14	.09	0
11	.02	.30	.19	.05	423	3.2	.30	.36	0	7.4	0	0
12	.02	.24	.19	.05	253	1.9	.30	.30	0	4.2	0	0
13	.02	.24	.16	.05	168	1.3	.24	.30	0	2.0	0	0
14	.02	.24	.13	.05	115	.90	.24	.09	.86	1.0	0	0
15	.02	.30	.15	.05	77	.70	.30	.19	106	.75	0	.02
16	.03	.30	.13	.05	69	.60	.84	.36	264	.43	0	0
17	.03	.30	.10	.05	73	.82	1.7	.43	358	.24	0	0
18	.03	.27	.13	.05	54	1.2	39	.14	150	.05	0	0
19	.03	.22	.18	.05	43	1.4	19	.05	67	.05	.02	0
20	.03	.17	.18	.05	34	1.2	11	.05	48	3.0	.02	0
21	.04	.13	.18	.06	18	.74	7.9	7.2	32	52	.02	0
22	.04	.13	.17	.07	14	.56	7.0	10	18	116	.02	0
23	.04	.14	.15	.09	15	.33	5.0	4.0	10	32	.02	0
24	.04	.13	.15	.09	21	.22	3.5	2.3	6.1	13	.02	0
25	.04	.11	.17	.09	16	.32	2.0	1.0	3.8	7.4	.02	0
26	.05	.09	.18	.09	10	.28	1.2	.84	2.5	4.6	.02	0
27	.05	.07	.19	.14	7.2	.26	1.4	2.3	1.4	2.8	.02	0
28	.05	.06	.18	.25	4.9	.24	2.0	.93	3.5	1.6	.02	0
29	.05	.05	.17	.37	4.0	.24	1.9	.19	3.1	.84	.02	.02
30	.05	.05	.19	.30	---	.50	1.7	.09	2.0	.50	.02	.02
31	.05	---	.13	.24	---	.75	---	24	---	.43	.02	---
TOTAL	.86	4.91	4.28	2.57	1809.30	51.96	115.25	96.08	1104.02	413.19	199.07	.18
MEAN	.028	.16	.14	.083	62.4	1.68	3.84	3.10	36.8	13.3	6.42	.006
MAX	.05	.30	.19	.37	423	5.2	39	24	358	116	88	.02
MIN	.01	.05	0	.01	.10	.22	.24	.05	0	.05	0	0
AC-FT	1.7	9.7	8.5	5.1	3590	103	229	191	2190	820	395	.4

WTR YR 1976 TOTAL 3801.67 MEAN 10.4 MAX 423 MIN 0 AC-FT 7540

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-57, 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
OCT 02...	1600	E.05	2800	8.2	16.0	20	9.3	2.6	410	0	73	56
DEC 04...	1000	.05	3500	7.6	3.0	10	7.2	3.3	640	110	130	77
JAN 08...	1130	A.02	3000	7.3	.0	30	4.7	2.5	560	0	120	64
FEB 05...	1230	A.12	4000	7.6	.0	25	7.6	3.2	1000	370	220	120
MAR 06...	1130	3.1	1400	7.6	.0	60	9.9	4.0	410	180	89	46
APR 08...	1315	.24	2000	8.0	8.0	43	10.4	3.2	480	160	100	56
MAY 06...	1100	2.2	2300	8.2	10.0	50	9.0	4.6	560	240	110	70
JUN 11...	1130	<.01	1500	8.0	25.0	250	7.4	6.9	260	0	56	29
JUL 09...	1500	32	670	7.5	28.0	130	5.1	5.3	200	87	41	24
AUG 05...	1315	6.5	480	7.3	20.0	1500	5.4	4.2	150	70	39	13
SEP 30...	1230	.02	2800	8.3	15.0	20	8.0	2.8	360	0	62	51

A Daily mean discharge.
E Estimate.

DATE	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT 02...	500	11	11	678	0	556	920	19	.8	8.0	1920	2.61
DEC 04...	490	8.4	9.9	647	0	531	1100	18	.5	8.2	2150	2.92
JAN 08...	450	8.3	9.6	694	0	569	920	16	.9	11	1940	2.64
FEB 05...	630	8.5	16	820	0	673	1600	53	.6	9.3	3050	4.15
MAR 06...	180	3.9	11	280	0	230	510	33	.4	6.7	1010	1.37
APR 08...	290	5.8	10	391	0	321	730	27	.5	5.0	1410	1.92
MAY 06...	290	5.3	11	398	0	326	800	36	.6	3.7	1520	2.07
JUN 11...	260	7.0	11	405	0	332	470	9.5	.7	9.6	1050	1.43
JUL 09...	60	1.8	9.0	139	0	114	190	25	.3	6.1	424	.58
AUG 05...	40	1.4	8.2	99	0	81	130	6.0	.3	4.4	290	.39
SEP 30...	480	11	13	628	0	515	880	18	.8	4.5	1820	2.48

DATE	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)
OCT 02...	.26	.01	.08	.65	.73	.74	.05	230	20	9.9	4100
DEC 04...	.29	.11	.14	.82	.96	1.1	.02	160	190	--	1400
JAN 08...	.10	.14	.14	.63	.77	.91	.04	150	460	7.8	--
FEB 05...	.99	.06	.09	1.1	1.2	1.3	.02	170	200	--	710
MAR 06...	8.45	.04	.14	1.6	1.7	1.7	.08	140	30	--	1600
APR 08...	.91	.01	.09	.91	1.0	1.0	.13	130	0	7.7	17000
MAY 06...	9.03	.01	.07	1.4	1.5	1.5	.08	170	10	--	22000
JUN 11...	.03	.07	.16	1.8	2.0	2.1	.18	180	30	--	--
JUL 09...	36.6	.15	.09	1.3	1.4	1.6	.26	180	110	22	5300
AUG 05...	5.09	.26	.50	2.9	3.4	3.7	.44	90	40	--	4200
SEP 30...	.10	.01	.07	.68	.75	.76	.06	240	10	9.6	11000

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	SUSPENDED ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUSPENDED ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	SUSPENDED BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	SUSPENDED CADMIUM (CD) (UG/L)
OCT 02...	1600	790	770	20	0	0	0	<10	0	<10	0	0
JAN 08...	1130	780	770	10	0	0	0	10	10	0	<10	<9
APR 08...	1315	1200	1200	10	0	0	0	0	0	10	<10	<8
JUL 09...	1500	6700	6700	20	6	2	4	0	0	0	<10	<9
SEP 30...	1230	490	490	0	1	0	1	10	10	0	<10	<9

DATE	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	SUSPENDED CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUSPENDED COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUSPENDED LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)
OCT 02...	0	10	0	10	10	7	3	770	<100	<98	2
JAN 08...	1	0	0	0	10	9	1	4100	<100	<98	2
APR 08...	2	0	0	0	<10	<10	0	1500	<100	<96	4
JUL 09...	1	10	10	0	30	22	8	8100	<100	<98	2
SEP 30...	1	0	0	0	<10	<7	3	460	<100	<99	1

DATE	TOTAL LITHIUM (LI) (UG/L)	SUSPENDED LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	SUSPENDED MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUSPENDED MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	SUSPENDED MOLYBDENUM (MO) (UG/L)
OCT 02...	30	0	30	250	140	110	.6	.4	.2	6	0
JAN 08...	30	0	30	1000	0	1000	.0	.0	.0	6	1
APR 08...	30	10	20	530	190	340	.0	.0	.0	2	1
JUL 09...	20	0	20	330	250	80	.0	.0	.0	0	0
SEP 30...	50	10	40	110	70	40	.0	.0	.0	5	1

DATE	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	SUSPENDED NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	SUSPENDED SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUSPENDED ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
OCT 02...	7	<50	<49	1	0	0	0	1.0	10	0	20
JAN 08...	5	<50	<48	2	0	0	0	.3	10	0	10
APR 08...	1	<50	<48	2	0	0	0	.6	20	20	0
JUL 09...	1	<50	<45	5	0	0	0	7.5	70	50	20
SEP 30...	4	<50	<44	6	0	0	0	1.1	30	20	10

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM
FEB 10...	0935	.0	327	602	532	--	--	--
MAY 19...	1130	21.0	.05	12	.00	--	--	--
JUN 16...	0945	--	327	8080	7130	91	97	100
17...	2015	12.0	234	2540	1610	8	11	100
AUG 05...	1100	18.5	6.7	2800	51	--	--	--

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	OCT 2.75	DEC 4.75	FEB 5.76	MAR 6.76	APR 8.76
TIME	1600	1000	1230	1130	1315
TOTAL CELLS/ML	4100	1400	710	1600	17000
DIVERSITY: DIVISION	1.0	1.0	0.9	1.0	0.7
.CLASS	1.0	1.0	0.9	1.0	0.9
..ORDER	1.6	1.0	1.0	1.6	0.9
...FAMILY	2.4	1.3	2.1	1.8	0.9
....GENUS	2.8	1.3	2.3	1.8	0.9

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	800#	20	--	-	24	4	290#	19	440	3
....CHODATELLA	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	*	0	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	*	0	--	-
....SELENASTRUM	100	3	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-
....CRUCIGENIA	400	10	--	-	--	-	--	-	--	-
....SCENEDESMUS	1200#	30	--	-	--	-	120	8	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	500	13	--	-	24	4	180	12	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	300	8	--	-	--	-	880#	56	--	-
..PENNALES										
...ACHNANTHACEAE										
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....RHOPALODIA	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE										
....SYNEDRA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....AMPHIPRORA	--	-	--	-	--	-	--	-	--	-
....CALONEIS	--	-	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	24	4	--	-	--	-
....NAVICULA	200	5	94	7	170#	25	--	-	--	-
....PINNULARIA	--	-	--	-	*	0	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	500	13	560#	41	290#	42	120	8	870	6
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	73	11	*	0	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...CHROMULINACEAE										
....CHRYSOCOCCUS	--	-	--	-	--	-	--	-	14000#	82
CYANOPHYTA (BLUE-GREEN ALGAE)										
.MYXOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	1700	11
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-	--	-
..OSCILLATORIALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	*	0	--	-
....CYLINDROSPERMUM	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	*	0	--	-	--	-
....LEPOCINCLIS	--	-	--	-	--	-	--	-	--	-
....PHACUS	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	100	3	720#	53	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..GYMNODINIALES										
...GYMNODINIACEAE										
....GYMNODINIUM	--	-	--	-	95	14	--	-	--	-
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

CHEYENNE RIVER BASIN
06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued
QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON

DATE	MAY 6.76	JUL 9.76	AUG 5.76	SEP 30.76
TIME	1100	1500	1315	1230
TOTAL CELLS/ML	22000	5300	4200	11000
DIVERSITY: DIVISION	1.5	1.8	1.4	0.4
.CLASS	1.5	1.8	1.4	0.4
..ORDER	1.5	2.2	2.1	0.4
...FAMILY	2.3	2.8	2.2	0.8
....GENUS	2.7	3.3	2.3	0.8

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...COELASTRACEAE								
....COELASTRUM	1400	7	--	-	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	58	2	--	-	--	-
....MICRACTINIUM	690	4	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	2900	13	230	5	--	-	--	-
....CHODATELLA	170	1	--	-	--	-	--	-
....DICTYOSPHAERIUM	690	4	--	-	--	-	--	-
....KIRCHNERIELLA	1400	7	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	930#	18	--	-	--	-
....CRUCIGENIA	170	1	--	-	--	-	--	-
....SCENEDESMUS	3600#	17	580	12	330	8	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	340	2	410	8	--	-	110	1
..PENNALES								
...ACHNANTHACEAE								
....COCCONEIS	--	-	--	-	--	-	110	1
...CYMBELLACEAE								
....RHOPALODIA	--	-	*	0	--	-	--	-
...FRAGILARIACEAE								
....SYNEDRA	--	-	120	3	--	-	--	-
...NAVICULACEAE								
....AMPHIPRORA	*	0	--	-	--	-	--	-
....CALONEIS	--	-	--	-	--	-	*	0
....GYROSIGMA	*	0	--	-	--	-	--	-
....NAVICULA	--	-	230	5	160	4	110	1
....PINNULARIA	*	0	*	0	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	690	4	1200#	24	240	6	--	-
...SURIRELLACEAE								
....SURIRELLA	*	0	--	-	--	-	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...CHROMULINACEAE								
....CHRYSOCOCCUS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.MYXOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	9300#	42	180	4	--	-	--	-
....GOMPHOSPHAERIA	--	-	--	-	980#	24	--	-
..OSCILLATORIALES								
...NOSTOCACEAE								
....ANABAENA	--	-	470	9	1800#	43	--	-
....CYLINDROSPERMUM	--	-	--	-	--	-	820	8
...OSCILLATORIACEAE								
....LYNGBYA	--	-	*	0	--	-	--	-
....OSCILLATORIA	*	0	--	-	--	-	9600#	87
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	170	1	410	8	81	2	--	-
....LEPOCINCLIS	--	-	350	7	--	-	--	-
....PHACUS	--	-	58	2	81	2	--	-
....TRACHELOMONAS	1000	5	--	-	570	14	270	3
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	--	-	--	-
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM, EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06426500 BELLE FOURCHE RIVER BELOW MOORCROFT, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

```
                         MAY  6, 1976
                          1100 HOURS

                 IDENTIFICATION OF PERIPHYTON

   _ORGANISM__NAME______________    _COMMON__NAME______

   CHLOROPHYTA                      GREEN ALGAE
   .CHLOROPHYCEAE
   ..CLADOPHORALES
   ...CLADOPHORACEAE
 O ....CLADOPHORA
   ..OEDOGONIALES
   ...OEDOGONIACEAE
 E ....OEDOGONIUM
   ..ULOTRICHALES
   ...CHAETOPHORACEAE
 E ....STIGEOCLONIUM
   CHRYSOPHYTA
   .BACILLARIOPHYCEAE               DIATOMS
   ..PENNALES                       PENNATE
   ...CYMBELLACEAE
 O ....AMPHORA
 O ....CYMBELLA
   ...DIATOMACEAE
 O ....DIATOMA
   ...FRAGILARIACEAE
 O ....SYNEDRA
   ...GOMPHONEMATACEAE
 O ....GOMPHONEMA
   ...NAVICULACEAE                  NAVICULOID
 O ....AMPHIPRORA
 O ....CALONEIS
 O ....GYROSIGMA
 E ....NAVICULA
 O ....PINNULARIA
   ...NITZSCHIACEAE
 O ....NITZSCHIA
   ...SURIRELLACEAE
 O ....SURIRELLA
   .CHRYSOPHYCEAE                   YELLOW-BROWN ALGAE
   ..CHRYSOMONADALES
   ...CHROMULINACEAE
 O ....CHRYSOCOCCUS
   EUGLENOPHYTA                     EUGLENOIDS
   .EUGLENOPHYCEAE
   ..EUGLENALES
   ...EUGLENACEAE
 O ....EUGLENA
 O ....PHACUS
 O ....TRACHELOMONAS

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
      O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
      SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL

                         JULY  9, 1976
                          1500 HOURS

                 IDENTIFICATION OF PERIPHYTON

   _ORGANISM__NAME______________    _COMMON__NAME______

   CHLOROPHYTA                      GREEN ALGAE
   .CHLOROPHYCEAE
   ..OEDOGONIALES
   ...OEDOGONIACEAE
 & ....OEDOGONIUM
   CHRYSOPHYTA
   .BACILLARIOPHYCEAE               DIATOMS
   ..PENNALES                       PENNATE
   ...CYMBELLACEAE
   ....CYMBELLA
   ....EPITHEMIA
   ...FRAGILARIACEAE
   ....SYNEDRA
   ...GOMPHONEMATACEAE
 & ....GOMPHONEMA
   ...NAVICULACEAE                  NAVICULOID
   ....GYROSIGMA
   ...NITZSCHIACEAE
 & ....NITZSCHIA
   ...SURIRELLACEAE
   ....CYMATOPLEURA

NOTE: & - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
      SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
      ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE
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06427000 KEYHOLE RESERVOIR NEAR MOORCROFT, WY

LOCATION.--Lat 44°22'55", long 104°46'45", in NW¼NW¼ sec.27, T.51 N., R.66 W., Crook County, Hydrologic Unit 10120201, at reservoir dam on Belle Fourche River 12 mi (19 km) northeast of Moorcroft.

DRAINAGE AREA.--2,000 mi^2 (5,180 km^2), approximately.

PERIOD OF RECORD.--March 1952 to current year.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (Bureau of Reclamation datum). Prior to May 15, 1958, and Oct. 1, 1968 to Mar. 13, 1970, nonrecording gages; May 15, 1958 to Sept. 30, 1968, water-stage recorder; all at present site and datum.

REMARKS.--Reservoir is formed by a zoned earthfill dam completed by the Bureau of Reclamation Oct. 25, 1952. Storage began Feb. 12, 1952. Dead storage, below elevation 4,036.0 ft (1,230.17 m), 1,170 acre-ft (1.44 hm^3). Inactive storage, between elevations 4,036.0 ft (1,230.17 m) and 4,051.0 ft (1,234.74 m), 8,310 acre-ft (10.2 hm^3). Total capacity below elevation 4,099.3 ft (1,249.47 m), crest of spillway, 199,900 acre-ft (246 hm^3). Figures given herein represent total contents. The reservoir provides flood control and water for irrigation in Wyoming and near Belle Fourche, SD.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 195,800 acre-ft (241 hm^3) Mar. 8, 1972, elevation, 4,098.87 ft (1,249.336 m); minimum daily (since appreciable storage was attained), 6,030 acre-ft (7.43 hm^3) Mar. 8, 9, 1955, elevation, 4,046.35 ft (1,233.327 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 152,800 acre-ft (188 hm^3) June 22, 23, elevation, 4,093.73 ft (1,247.769 m); minimum daily, 133,600 acre-ft (165 hm^3) Nov. 28 to Dec. 7, elevation, 4,091.06 ft (1,246.955 m).

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Date	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	4,091.42	136,100	-
Oct. 31	4,091.29	134,500	-1,600
Nov. 30	4,091.06	133,600	-900
Dec. 31	4,091.09	133,800	+200
CAL YR 1975	-	-	-4,000
Jan. 31	4,091.13	134,100	+300
Feb. 29	4,091.70	138,000	+3,900
Mar. 31	4,091.94	139,700	+1,700
Apr. 30	4,092.07	140,600	+900
May 31	4,092.17	141,300	+700
June 30	4,093.58	151,600	+10,300
July 31	4,093.00	147,300	-4,300
Aug. 31	4,092.10	140,800	-6,500
Sept. 30	4,091.08	133,700	-7,100
WTR YR 1976	-	-	-2,400

06427500 BELLE FOURCHE RIVER BELOW KEYHOLE RESERVOIR, WY

LOCATION.--Lat 44°23'05", long 104°46'50", in NE¼SE¼SE¼ sec.21, T.51 N., R.66 W., Crook County, Hydrologic Unit 10120201, on right bank 0.2 mi (0.3 km) downstream from Keyhole Dam, 1.0 mi (1.6 km) downstream from Mule Creek, 2.5 mi (4.0 km) upstream from Spring Creek, and 12 mi (19 km) northeast of Moorcroft.

DRAINAGE AREA.--2,000 mi^2 (5,180 km^2), approximately.

PERIOD OF RECORD.--April 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,031.26 ft (1,228.728 m) above mean sea level.

REMARKS.--Records fair. Flow completely regulated by Keyhole Reservoir, 0.2 mi (0.3 km) upstream, since February 1952. (See sta 06427000.) Diversions for irrigation of about 820 acres (3.32 km^2) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,020 ft^3/s (28.9 m^3/s) Sept. 5, 1951, gage height, 6.30 ft (1.920 m); minimum daily since appreciable storage in Keyhole Reservoir, 0.30 ft^3/s (0.008 m^3/s) Feb. 6-20, 1960; no flow at times in 1951-52.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 102 ft^3/s (2.89 m^3/s) July 16 to Aug. 1; maximum gage height, 3.15 ft (0.960 m) July 15 (backwater from beaver dam); minimum daily discharge, 2.0 ft^3/s (0.057 m^3/s) Nov. 3 to July 14 (seepage flow).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	96
2	2.9	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	86	96
3	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	69	96
4	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	69	96
5	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	69	96
6	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	57	96
7	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	41	96
8	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	41	96
9	2.9	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	41	96
10	2.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	41	96
11	2.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	41	96
12	2.8	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	41	96
13	2.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	41	96
14	2.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	41	96
15	2.7	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	46	41	96
16	2.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	41	96
17	2.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	41	96
18	2.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	41	96
19	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	41	96
20	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	41	96
21	2.5	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	41	96
22	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	41	96
23	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	41	53
24	2.4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	41	2.3
25	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	41	2.3
26	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	67	2.3
27	2.3	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	96	2.3
28	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	96	2.3
29	2.2	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	96	2.3
30	2.2	2.0	2.0	2.0	---	2.0	2.0	2.0	2.0	102	96	2.3
31	2.1	---	2.0	2.0	---	2.0	---	2.0	---	102	96	---
TOTAL	80.7	60.2	62.0	62.0	58.0	62.0	60.0	62.0	60.0	1706.0	1778	2181.1
MEAN	2.60	2.01	2.00	2.00	2.00	2.00	2.00	2.00	2.00	55.0	57.4	72.7
MAX	2.9	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	102	102	96
MIN	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	41	2.3
AC-FT	160	119	123	123	115	123	119	123	119	3380	3530	4330

CAL YR 1975 TOTAL 5820.6 MEAN 15.9 MAX 100 MIN 1.6 AC-FT 11550
WTR YR 1976 TOTAL 6232.0 MEAN 17.0 MAX 102 MIN 2.0 AC-FT 12360

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY

LOCATION.--Lat 44°35'22", long 104°42'12", in NW¼SE¼SE¼ sec.7, T.53 N., R.65 W., Crook County, Hydrologic Unit 10120201, at bridge 0.2 mi (0.3 km) west of entrance to Devils Tower National Monument.

PERIOD OF RECORD.--Water years 1968 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)
OCT 02...	1000	5.8	1600	8.0	10.0	5	9.9	2.0	20	640
NOV 05...	1200	10	1650	8.0	8.0	5	10.7	2.3	82	730
DEC 03...	1230	11	1900	7.9	2.5	2	11.0	2.5	82	840
JAN 08...	0900	12	1900	7.5	.0	4	10.8	1.8	86	970
FEB 05...	0900	11	1800	7.6	.0	2	12.0	1.8	86	910
MAR 06...	0900	12	1050	7.6	.0	7	10.9	2.9	86	790
APR 08...	0900	42	1500	8.1	8.0	15	11.0	3.7	72	800
MAY 06...	0830	25	1850	8.0	10.0	15	9.2	3.9	80	840
JUN 10...	1445	14	900	8.2	28.0	60	9.4	8.5	B110	390
JUL 09...	1045	23	1400	8.0	25.0	20	7.2	2.9	92	730
AUG 05...	0845	44	1080	8.0	19.0	30	7.1	4.3	110	320
SEP 02...	0900	80	890	8.2	18.5	20	7.6	2.6	42	270
30...	0930	7.0	1280	8.1	12.0	5	8.6	3.0	40	400

B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT 02...	440	150	64	130	2.2	7.9	250	0	205
NOV 05...	560	200	58	110	1.8	7.4	210	0	172
DEC 03...	680	220	70	110	1.7	7.9	190	0	156
JAN 08...	720	270	72	100	1.4	4.9	310	0	254
FEB 05...	650	260	67	100	1.4	7.4	320	0	263
MAR 06...	600	230	56	64	1.0	8.8	230	0	189
APR 08...	610	240	51	52	.8	6.7	230	0	189
MAY 06...	660	240	61	69	1.0	7.8	220	0	180
JUN 10...	280	110	32	48	1.0	6.7	130	0	107
JUL 09...	570	190	59	70	1.1	7.0	190	0	156
AUG 05...	160	80	30	90	2.2	6.7	190	0	156
SEP 02...	110	69	25	97	2.5	7.4	190	0	156
30...	210	94	39	110	2.4	7.2	230	0	189

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	SUS-PENDED SOLIDS (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)
OCT 02...	700	5.4	.7	4.9	1190	1.62	18.6	16	.02
NOV 05...	810	8.8	.7	6.6	1290	1.75	34.8	84	.00
DEC 03...	890	8.1	.7	9.4	1410	1.92	41.9	0	.02
JAN 08...	910	7.0	.8	10	1530	2.08	49.6	3	.00
FEB 05...	870	7.7	.8	8.8	1480	2.01	44.0	1	.07
MAR 06...	740	8.7	.6	7.5	1230	1.67	39.9	12	.09
APR 08...	720	5.2	.6	5.4	1190	1.62	135	12	.02
MAY 06...	800	5.8	.7	3.1	1290	1.75	87.1	35	.02
JUN 10...	390	3.7	.6	5.4	661	.90	25.0	73	.05
JUL 09...	710	6.3	.7	7.6	1150	1.56	71.4	50	.18
AUG 05...	360	9.3	.7	1.4	674	.92	80.1	51	.20
SEP 02...	310	10	.7	.0	628	.85	136	41	3.2
30...	410	21	.7	1.4	801	1.09	15.1	5	.07

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL BORON (B) (UG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)
OCT 02...	.00	.04	.48	.52	.52	.02	250	11	420
NOV 05...	.01	.02	.29	.31	.32	.01	--	--	550
DEC 03...	.00	.00	.14	.14	.14	.01	--	--	100
JAN 08...	.01	.05	.43	.48	.49	.00	240	13	530
FEB 05...	.13	.04	.20	.24	.37	.00	230	--	280
MAR 06...	.10	.02	.75	.77	.87	.02	260	--	740
APR 08...	.02	.08	.68	.76	.78	.02	210	4.3	390
MAY 06...	.01	.00	.38	.38	.39	.03	290	--	420
JUN 10...	.08	.13	.97	1.1	1.2	.08	160	--	3200
JUL 09...	.04	.01	.32	.33	.37	.08	230	4.8	1400
AUG 05...	.02	.09	.69	.78	.80	.05	150	--	1800
SEP 02...	.26	.05	.75	.80	1.1	.03	150	--	1400
30...	.01	.01	.54	.55	.56	.01	160	9.6	920

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	SUS-PENDED ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	SUS-PENDED ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	SUS-PENDED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)
OCT 02...	1000	170	160	10	0	0	1	<10	0	<10	0	0
JAN 08...	0900	140	120	20	0	0	0	10	0	10	<10	<9
APR 08...	0900	240	240	0	0	0	0	0	0	10	10	9
JUL 09...	1045	1000	1000	0	1	0	1	0	0	0	10	9
SEP 30...	0930	290	290	0	5	0	5	0	0	0	<10	<9

DATE	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	SUS-PENDED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	SUS-PENDED COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	SUS-PENDED LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)
OCT 02...	1	10	0	10	10	8	2	190	60	<100	<97	3
JAN 08...	1	0	0	0	20	17	3	170	0	<100	<97	3
APR 08...	1	0	0	0	10	10	0	430	0	<100	<96	4
JUL 09...	1	0	0	0	20	16	4	1500	10	<100	<98	2
SEP 30...	1	0	0	0	<10	<7	3	480	10	<100	<100	0

DATE	TOTAL LITHIUM (LI) (UG/L)	SUS-PENDED LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	SUS-PENDED MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	SUS-PENDED MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	SUS-PENDED MOLYB-DENUM (MO) (UG/L)
OCT 02...	70	10	60	70	20	50	.0	.0	.0	4	3
JAN 08...	70	0	70	60	20	40	.0	.0	.1	2	0
APR 08...	40	0	50	240	70	170	.0	.0	.0	2	0
JUL 09...	60	0	70	170	130	40	.0	.0	.0	0	0
SEP 30...	40	0	50	50	30	20	.0	.0	.0	2	1

DATE	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	SUS-PENDED NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	SUS-PENDED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	SUS-PENDED ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
OCT 02...	1	<50	<48	2	0	0	0	.0	20	0	20
JAN 08...	2	<50	<48	2	1	0	1	.1	80	70	10
APR 08...	2	<50	<48	2	1	0	1	.6	10	10	0
JUL 09...	2	<50	<48	2	1	0	1	4.2	30	20	10
SEP 30...	1	<50	<46	4	1	0	1	.0	20	10	10

CHEYENNE RIVER BASIN

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	OCT 2.75		NOV 5.75		DEC 3.75		JAN 8.76		FEB 5.76	
TIME	1000		1200		1230		0900		0900	
TOTAL CELLS/ML	420		550		100		530		280	
DIVERSITY: DIVISION	1.1		0.0		0.0		1.3		0.0	
.CLASS	1.4		0.0		0.0		1.3		0.0	
..ORDER	2.0		0.0		0.0		1.6		0.0	
...FAMILY	2.7		0.3		1.0		2.6		2.1	
....GENUS	3.1		0.3		1.0		2.6		2.1	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...HYDRODICTYACEAE										
....PEDIASTRUM	20	5	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	60	15	--	-	--	-	--	-	--	-
....CHLORELLA	40	10	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	--	-	*	0	20	4	--	-
..ULOTRICHALES										
...ULOTRICHACEAE										
....HORMIDIUM	--	-	--	-	--	-	160#	31	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-
...PHACOTACEAE										
....PHACOTUS	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	--	-	--	-	--	-	--	-	--	-
....COSMARIUM	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	20	5	--	-	--	-	--	-	--	-
....MELOSIRA	80#	20	--	-	--	-	13	3	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	11	12	--	-	12	5
....COCCONEIS	40	10	--	-	--	-	46	9	*	0
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	--	-	12	5
...DIATOMACEAE										
....DIATOMA	--	-	--	-	--	-	--	-	12	5
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	--	-	--	-	12	5
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	13	3	24	9
...NAVICULACEAE										
....CALONEIS	--	-	--	-	--	-	--	-	*	0
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	80#	20	29	6	11	12	72	14	72#	27
....PINNULARIA	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....DENTICULA	--	-	--	-	--	-	--	-	--	-
....NITZSCHIA	40	10	520#	95	79#	78	140#	28	130#	48
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	--	-	20	4	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....OCHROMONAS	20	5	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.MYXOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....AGMENELLUM	--	-	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-	--	-
..OSCILLATORIALES										
...NOSTOCACEAE										
....APHANIZOMENON	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	39	8	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOMONODACEAE										
....CRYPTOMONAS	20	5	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

CHEYENNE RIVER BASIN

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	MAR 6,76		APR 8,76		MAY 6,76		JUN 10,76	
TIME	0900		0900		0830		1445	
TOTAL CELLS/ML	740		390		420		3200	
DIVERSITY: DIVISION	1.2		0.0		0.2		1.0	
.CLASS	1.6		0.0		0.2		1.0	
..ORDER	1.6		0.0		0.2		1.3	
...FAMILY	2.7		1.3		2.0		2.2	
....GENUS	2.7		1.4		2.1		2.2	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	57	8	--	-	--	-	55	2
....CHLORELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	*	0	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	--	-	--	-	--	-
..ULOTRICHALES								
...ULOTRICHACEAE								
....HORMIDIUM	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
...PHACOTACEAE								
....PHACOTUS	--	-	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	--	-	--	-	--	-	--	-
....COSMARIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	--	-	--	-	--	-
....MELOSIRA	--	-	--	-	--	-	160	6
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	18	5	--	-	55	2
...CYMBELLACEAE								
....CYMBELLA	28	4	--	-	15	4	110	4
...DIATOMACEAE								
....DIATOMA	28	4	*	0	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	*	0	--	-	--	-
....SYNEDRA	28	4	*	0	170#	41	110	4
...GOMPHONEMATACEAE								
....GOMPHONEMA	57	8	18	5	*	0	55	2
...NAVICULACEAE								
....CALONEIS	--	-	18	5	--	-	--	-
....GYROSIGMA	--	-	*	0	15	4	--	-
....NAVICULA	--	-	71#	19	46	12	1300#	41
....PINNULARIA	--	-	*	0	--	-	--	-
...NITZSCHIACEAE								
....DENTICULA	--	-	--	-	--	-	--	-
....NITZSCHIA	310#	43	270#	69	140#	34	330	11
...SURIRELLACEAE								
....SURIRELLA	28	4	*	0	15	4	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	57	8	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.MYXOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	--	-	--	-	--	-
....GOMPHOSPHAERIA	--	-	--	-	--	-	--	-
..OSCILLATORIALES								
...NOSTOCACEAE								
....APHANIZOMENON	--	-	--	-	--	-	1000#	33
...OSCILLATORIACEAE								
....OSCILLATORIA	110#	16	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOMONODACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	*	0	15	4	--	-
....TRACHELOMONAS	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	28	4	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

CHEYENNE RIVER BASIN

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JUL 9,76		AUG 5,76		SEP 2,76		SEP 30,76	
TIME	1045		0845		0900		0930	
TOTAL CELLS/ML	1400		1800		1400		920	
DIVERSITY: DIVISION	1.4		1.5		1.2		1.0	
.CLASS	1.4		1.5		1.2		1.0	
..ORDER	1.4		2.1		1.3		1.2	
...FAMILY	1.6		2.9		1.7		1.3	
....GENUS	1.6		3.2		1.9		1.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	69	6	98	6	17	2	--	-
....CHLORELLA	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	280#	21	200	11	66	5	--	-
..ULOTRICHALES								
...ULOTRICHACEAE								
....HORMIDIUM	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	29	4
...PHACOTACEAE								
....PHACOTUS	--	-	--	-	--	-	*	0
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	--	-	25	2	--	-	--	-
....COSMARIUM	--	-	--	-	--	-	7	1
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	25	2	17	2	29	4
....MELOSIRA	--	-	120	7	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	*	0	--	-	--	-
....COCCONEIS	--	-	150	9	50	4	7	1
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	--	-	*	0
...DIATOMACEAE								
....DIATOMA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	200	11	33	3	--	-
....SYNEDRA	--	-	25	2	17	2	7	1
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....CALONEIS	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	17	2	--	-
....NAVICULA	--	-	*	0	66	5	7	1
....PINNULARIA	--	-	--	-	17	2	14	2
...NITZSCHIACEAE								
....DENTICULA	--	-	25	2	--	-	--	-
....NITZSCHIA	760#	56	390#	22	66	5	51	6
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	17	2	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.MYXOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	390#	22	--	-	--	-
....ANACYSTIS	280#	21	25	2	--	-	--	-
....GOMPHOSPHAERIA	--	-	--	-	--	-	720#	79
..OSCILLATORIALES								
...NOSTOCACEAE								
....APHANIZOMENON	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	170	10	1000#	71	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOMONODACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	43	5
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	*	0	33	3	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY--Continued
QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PERIPHYTON

NOV. 5, 1975
1200 HOURS

IDENTIFICATION OF PERIPHYTON

_ORGANISM__NAME_______________	_COMMON__NAME______
CHLOROPHYTA	GREEN ALGAE
.CHLOROPHYCEAE	
..CHLOROCOCCALES	
...SCENEDESMACEAE	
....SCENEDESMUS	
..OEDOGONIALES	
...OEDOGONIACEAE	
....OEDOGONIUM	
..ULOTRICHALES	
...CHAETOPHORACEAE	
....STIGEOCLONIUM	
..ZYGNEMATALES	
...ZYGNEMATACEAE	
....MOUGEOTIA	
CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...ACHNANTHACEAE	
....ACHNANTHES	
....COCCONEIS	
....RHOICOSPHENIA	
...CYMBELLACEAE	
....AMPHORA	
....CYMBELLA	
....EPITHEMIA	
....RHOPALODIA	
...GOMPHONEMATACEAE	
....GOMPHONEMA	
...NAVICULACEAE	NAVICULOID
....CALONEIS	
....GYROSIGMA	
....NAVICULA	
...NITZSCHIACEAE	
....NITZSCHIA	
...SURIRELLACEAE	
....SURIRELLA	
CYANOPHYTA	BLUE-GREEN ALGAE
.MYXOPHYCEAE	
..OSCILLATORIALES	FILAMENTOUS
...NOSTOCACEAE	
....ANABAENA	
...OSCILLATORIACEAE	
....LYNGBYA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

MAY 6, 1976
0830 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME_______________	_COMMON__NAME_______
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....CALONEIS	
O	....GYROSIGMA	
O	....NAVICULA	
O	....PINNULARIA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....CYMATOPLEURA	
O	....SURIRELLA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06427850 BELLE FOURCHE RIVER AT DEVILS TOWER, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

JULY 9, 1976
1045 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME	_COMMON__NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
	....OEDOGONIUM	
	..ULOTRICHALES	
	...COLEOCHAETACEAE	
	....COLEOCHAETE	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
&	....COCCONEIS	
	...CYMBELLACEAE	
	....CYMBELLA	
&	....EPITHEMIA	
	...NAVICULACEAE	NAVICULOID
	....NAVICULA	
	...NITZSCHIACEAE	
	....NITZSCHIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...RIVULARIACEAE	
	....CALOTHRIX	

NOTE: & - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

SEP. 30, 1976
0930 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME	_COMMON__NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
O	....CLADOPHORA	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	..ULOTRICHALES	
	...CHAETOPHORACEAE	
E	....STIGEOCLONIUM	
	...COLEOCHAETACEAE	
O	....COLEOCHAETE	
	...TRENTEPOHLIACEAE	
O	....GONGROSIRA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....EPITHEMIA	
	...DIATOMACEAE	
E	....DIATOMA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....NAVICULA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....LYNGBYA	
	RHODOPHYTA	RED ALGAE
	.RHODOPHYCEAE	
	..NEMALIONALES	
	...CHANTRANSICACEAE	
O	....AUDOUINELLA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°44'59", long 104°02'49", in NE¼NW¼NW¼ sec.18, T.9 N., R.1 E., Butte County, SD, Hydrologic Unit 10120202, on left bank 0.3 mi (0.5 km) downstream from State line, 3.7 mi (6.0 km) downstream from Oak Creek, and 11 mi (18 km) northwest of Belle Fourche, SD.

DRAINAGE AREA.--3,280 mi² (8,500 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1946 to current year. Records for water year 1947 incomplete, yearly estimate published in WSP 1729.

GAGE.--Water-stage recorder. Datum of gage is 3,095.7 ft (943.57 m) above mean sea level.

REMARKS.--Records good except those for winter periods, which are poor. Diversions above station for irrigation of about 5,400 acres (2,200 hm³). Flow regulated by Keyhole Reservoir, usable capacity, 191,600 acre-ft (236 hm³), 143 mi (230 km) upstream, since Oct. 25, 1952 (see sta 06427000).

AVERAGE DISCHARGE.--30 years, 88.4 ft³/s (2.503 m³/s), 64,050 acre-ft/yr (79.0 hm³/yr); median of yearly mean discharge, 93 ft³/s (2.63 m³/s), 67,400 acre-ft/yr (83 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,400 ft³/s (125 m³/s) June 18, 1962, gage height, 15.59 ft (4.752 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,910 ft³/s (82.4 m³/s) June 17, gage height, 12.76 ft (3.889 m); minimum daily, 12 ft³/s (0.340 m³/s) Nov. 30, Dec. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	25	15	17	35	25	97	80	39	112	129	81
2	23	26	19	16	33	22	85	88	37	107	119	81
3	22	25	20	15	30	21	79	51	126	125	116	80
4	22	25	23	16	25	20	73	78	102	133	122	82
5	20	26	25	18	20	20	69	71	66	133	137	81
6	20	26	24	18	22	25	65	68	204	115	140	82
7	21	25	24	16	25	25	66	64	77	102	113	84
8	21	25	24	16	30	28	65	61	63	97	98	83
9	23	24	25	17	35	30	65	58	116	90	88	85
10	22	23	25	18	35	30	64	55	98	83	77	87
11	22	22	22	20	37	28	62	52	61	78	72	86
12	23	15	22	21	40	25	61	53	45	75	69	88
13	25	16	20	20	40	30	61	52	39	74	80	88
14	24	29	18	20	45	30	64	53	462	75	80	88
15	25	35	15	23	45	40	66	59	1720	107	67	89
16	25	29	14	26	45	60	75	61	1240	121	63	90
17	24	31	12	30	45	92	100	58	2220	84	71	89
18	24	27	14	30	45	106	104	62	1970	72	74	88
19	23	26	17	30	42	95	156	60	1870	115	64	84
20	23	25	17	30	40	79	150	56	1010	117	59	84
21	22	22	17	35	35	101	137	58	575	113	56	85
22	21	23	17	35	40	117	120	60	418	112	53	84
23	23	25	16	35	42	168	98	55	352	146	49	84
24	24	20	16	30	42	166	86	52	273	224	45	84
25	23	17	17	25	42	133	80	52	231	239	42	86
26	25	15	16	20	45	105	76	56	196	201	44	84
27	26	15	17	23	45	125	74	65	170	157	47	61
28	26	15	17	25	45	184	83	55	155	137	46	47
29	25	13	18	30	35	186	85	49	138	133	48	40
30	26	12	18	30	---	156	83	46	122	118	68	35
31	26	---	17	35	---	123	---	42	---	117	78	---
TOTAL	722	682	581	740	1085	2395	2549	1870	14195	3712	2414	2390
MEAN	23.3	22.7	18.7	23.9	37.4	77.3	85.0	60.3	473	120	77.9	79.7
MAX	26	35	25	35	45	186	156	91	2220	239	140	90
MIN	20	12	12	15	20	20	61	42	37	72	42	35
AC-FT	1430	1350	1150	1470	2150	4750	5060	3710	28160	7360	4790	4740

CAL YR 1975 TOTAL 38958.5 MEAN 107 MAX 1250 MIN 7.0 AC-FT 77270
WTR YR 1976 TOTAL 33335.0 MEAN 91.1 MAX 2220 MIN 12 AC-FT 66120

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at bridge on county road, 8.0 mi (12.9 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1976 (discontinued).
WATER TEMPERATURES: October 1965 to September 1976 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,250 micromhos Feb. 7, 1975; minimum daily, 461 micromhos Apr. 12, 1971.
WATER TEMPERATURES: Maximum, 31.0°C June 19, 1974; minimum, 0.0°C on many days during winter period.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,330 micromhos Nov. 30, Jan. 6; minimum daily, 595 micromhos June 18.
WATER TEMPERATURES: Maximum, 29.0°C June 10, July 19, 21, 22, 24; minimum observed (at discharge station), 0.0°C Dec. 3, Jan. 7, Feb. 11, Mar. 4.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT									
01...	1400	23	2000	12.0	1	11.8	B480	960	800
NOV									
05...	0900	25	--	5.0	--	--	--	980	820
DEC									
03...	1000	A20	--	.0	--	--	--	1300	1100
JAN									
07...	1300	A16	1900	.0	1	10.6	B5	1100	880
FEB									
11...	1130	A37	--	.0	--	--	--	970	820
MAR									
04...	0945	A20	--	.0	--	--	--	1100	880
APR									
07...	1430	66	1650	12.0	30	10.6	B220	740	580
MAY									
18...	1730	63	--	24.0	--	--	--	780	640
JUL									
09...	0830	92	1450	24.5	40	7.3	170	680	520
AUG									
04...	2000	116	--	25.5	--	--	--	490	320
SEP									
01...	1320	82	--	22.5	--	--	--	590	450
29...	1150	35	1500	12.5	20	9.4	B30	500	310

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT									
01...	250	80	120	1.7	9.8	200	0	164	1000
NOV									
05...	270	73	110	1.5	7.9	200	0	164	1000
DEC									
03...	360	91	130	1.6	9.3	270	0	221	1300
JAN									
07...	320	87	120	1.5	6.3	270	0	221	1200
FEB									
11...	280	69	85	1.2	8.4	180	0	148	970
MAR									
04...	310	82	100	1.3	8.4	270	0	221	1100
APR									
07...	220	49	59	.9	8.4	200	0	164	710
MAY									
18...	220	59	78	1.2	7.9	170	0	139	800
JUL									
09...	190	52	79	1.3	9.1	190	0	156	700
AUG									
04...	130	41	98	1.9	9.3	210	0	172	530
SEP									
01...	160	45	110	2.0	8.6	170	0	139	680
29...	130	45	110	2.1	8.6	230	0	189	510

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT								
01...	9.8	.9	3.7	1600	2.18	99.4	.05	.00
NOV								
05...	11	.9	5.5	1610	2.19	109	.00	.00
DEC								
03...	8.8	.9	9.3	2000	2.72	108	.05	.01
JAN								
07...	8.4	1.0	9.1	1850	2.52	79.9	.02	.01
FEB								
11...	6.3	.8	6.9	1520	2.07	152	.00	.01
MAR								
04...	7.7	.9	7.1	1750	2.38	94.5	.02	.03
APR								
07...	5.2	.7	6.4	1150	1.56	205	.02	.03
MAY								
18...	5.4	.9	5.2	1250	1.70	213	.05	.09
JUL								
09...	5.6	.9	11	1130	1.54	281	.05	.12
AUG								
04...	9.3	.7	6.6	928	1.26	291	.00	.21
SEP								
01...	11	.9	7.0	1110	1.51	246	.36	.05
29...	27	.8	4.0	945	1.29	89.3	.38	.08

06428500 BELLE FOURCHE RIVER AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1960	2010	2300	---	1780	1780	1150	1700	1690	1310	1150	1460
2	2010	2010	2210	2120	1770	1740	1190	1580	1720	1390	1240	1390
3	2020	1970	2240	2080	1800	1960	1150	1540	1730	1410	1260	1300
4	2050	2000	1700	2200	1860	2100	1420	1550	1740	1420	1220	1250
5	2050	2000	2070	2250	1880	1950	1390	1530	1670	1420	1180	1230
6	2050	2000	1970	2330	1940	1870	1330	1520	1420	1470	1190	1230
7	2050	2000	1860	2230	2010	1820	1400	1570	1150	1390	1200	1200
8	2120	2000	1830	2230	2010	1720	1460	1530	1280	1400	1220	1220
9	2100	2000	1860	2180	1900	1480	1550	1530	1340	1470	1470	1220
10	2090	1820	1720	2180	1890	1300	1580	1540	1310	1520	1390	1210
11	2070	1940	1660	2120	1830	1380	1590	1600	1440	1560	1450	1190
12	1970	1940	1710	2090	1750	1530	1600	1600	1250	1560	1470	1190
13	2030	2050	1800	2070	1710	1510	1640	1590	1350	1580	1280	1190
14	2030	2020	1860	2070	1600	1610	1520	1620	703	1630	1440	1200
15	2030	1970	1940	2090	1430	1590	1610	1590	880	1560	1510	1180
16	2020	1690	1980	2130	1430	1570	1480	1580	966	1530	1360	1180
17	2040	1680	2020	2010	1420	1380	1520	1570	720	1600	1560	1180
18	2060	1910	2090	2050	1450	1040	1570	1590	595	1680	1470	1200
19	2060	2020	2070	2050	1480	998	1570	1610	663	1620	1510	1200
20	2050	1900	2090	2060	1540	1140	1040	1640	607	1260	1570	1190
21	1930	2010	2070	1970	1540	1340	1190	1540	753	1250	1550	1180
22	2020	2120	2070	1920	1560	1300	1290	1510	897	1340	1550	1180
23	2000	2150	2120	1880	1500	1330	1300	1620	981	1230	1560	1180
24	2020	2270	2270	1870	1510	958	1250	1690	1080	1140	1660	1180
25	2030	2200	2100	1860	1490	1100	1340	1660	1080	952	1720	1190
26	2010	2150	---	1940	1490	1230	1380	1580	1180	894	1700	1180
27	2040	2120	---	1940	1540	1130	1390	1540	1250	873	1670	1170
28	2010	2140	---	2040	1570	1060	1420	1620	1270	1180	1660	1170
29	2010	2200	---	1950	1640	1110	1430	1600	1370	1240	1660	1380
30	2000	2330	---	1920	---	1040	1530	1580	1360	1210	1660	1460
31	1970	---	---	1780	---	1130	---	1620	---	1240	1520	---
MONTH	2030	2020	1980	2050	1670	1430	1410	1590	1180	1370	1450	1230
YEAR	MAX	2330	MIN	595	MEAN	1610						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.0	8.0	0.5	---	1.0	0.5	10.0	15.0	26.0	25.0	22.0	24.5
2	18.0	10.0	0.5	0.5	0.5	0.5	8.0	14.0	26.5	24.0	23.0	23.0
3	15.0	10.0	0.5	0.5	0.5	0.5	10.0	16.5	26.5	25.0	24.5	22.0
4	16.0	18.0	0.5	0.5	0.5	0.5	9.0	19.0	26.5	26.5	27.0	25.0
5	17.0	16.0	1.0	0.5	0.5	0.5	14.0	12.5	24.0	27.0	24.0	25.0
6	17.0	14.0	1.0	0.5	0.5	0.5	9.5	14.0	20.0	26.5	24.0	23.0
7	17.0	7.0	0.5	0.5	0.5	0.5	10.0	17.0	27.5	27.0	25.0	17.0
8	9.0	8.0	1.0	0.5	0.5	0.5	10.0	19.0	28.0	28.0	25.0	17.0
9	11.0	5.5	0.5	0.5	0.5	0.5	10.0	20.0	28.5	28.0	25.0	18.0
10	13.0	8.0	2.0	0.5	1.0	0.5	12.0	17.0	29.0	28.0	24.5	19.0
11	15.0	2.0	0.5	0.5	1.0	0.5	17.0	14.0	24.0	28.0	25.0	19.5
12	14.0	0.5	0.5	0.5	1.0	0.5	18.0	12.0	23.5	28.0	17.0	19.0
13	9.0	2.0	0.5	0.5	1.0	1.0	19.0	15.0	20.0	27.0	21.0	19.0
14	7.0	1.0	0.5	0.5	1.0	2.0	17.0	22.0	18.0	27.0	23.0	20.5
15	11.5	3.0	0.5	0.5	1.0	7.0	14.0	15.0	17.5	27.0	22.0	21.0
16	13.5	5.0	0.5	0.5	1.0	8.0	9.0	20.0	17.5	27.0	21.0	21.0
17	9.0	4.0	0.5	0.5	1.0	10.0	10.0	23.0	16.5	27.0	25.0	21.5
18	9.0	1.0	0.5	0.5	1.0	13.0	10.0	25.0	15.5	27.0	25.0	21.5
19	12.0	0.5	1.0	0.5	1.0	4.0	11.0	22.0	17.0	29.0	26.0	17.0
20	10.0	0.5	1.0	0.5	1.0	4.0	12.0	21.0	20.0	26.5	27.0	13.5
21	12.0	0.5	0.5	0.5	1.0	5.0	12.0	19.0	22.0	29.0	25.0	15.0
22	6.0	0.5	0.5	0.5	1.0	15.0	11.0	15.0	20.0	29.0	24.5	16.0
23	5.0	0.5	1.0	0.5	2.0	12.0	10.0	15.0	19.0	28.0	26.5	15.0
24	5.5	0.5	1.5	0.5	4.0	8.0	12.0	17.0	20.0	29.0	25.0	16.5
25	5.5	0.5	1.0	0.5	3.0	7.0	11.0	19.5	20.5	25.0	26.5	17.0
26	6.0	0.5	---	0.5	1.0	9.0	10.0	19.0	15.5	24.5	25.0	16.0
27	10.0	0.5	---	0.5	4.0	8.0	9.0	21.5	20.5	25.0	26.0	16.0
28	11.0	0.5	---	0.5	1.0	8.0	10.0	24.0	24.0	24.0	24.0	16.0
29	10.0	0.5	---	0.5	0.5	6.0	10.0	20.0	25.0	24.0	23.0	18.0
30	8.0	0.5	---	1.0	---	10.0	12.0	16.0	24.0	25.0	23.0	21.0
31	18.0	---	---	1.0	---	12.0	---	24.0	---	25.0	24.5	---
MONTH	11.5	4.5	0.5	0.5	1.0	5.0	11.5	18.0	22.0	26.5	24.0	19.0
YEAR	MAX	29.0	MIN	0.5	MEAN	12.5						

06429500 COLD SPRINGS CREEK AT BUCKHORN, WY

LOCATION.--Lat 44°09'14", long 104°04'39", in NW¼ sec.9, T.48 N., R.60 W., Weston County, Hydrologic Unit 10120303, on right shoulder of Cold Springs Creek road, 155 ft (47 m) upstream from centerline of U.S. Highway 85, and 0.5 mi (0.8 km) northeast of Buckhorn.

DRAINAGE AREA.--19.0 mi² (49.2 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,090 ft (1,855 m), from topographic map.

REMARKS.--Records good except those for winter periods, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 11 ft³/s (0.31 m³/s) Apr. 4, 1975; maximum gage height, 6.77 ft (2.064 m) Apr. 4, 1975 (backwater from snow); minimum daily discharge, 2.0 ft³/s (0.057 m³/s) Mar. 28, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 7.2 ft³/s (0.204 m³/s) Apr. 9; maximum gage height, 5.86 ft (1.786 m) Feb. 5 (backwater from ice); minimum daily discharge, 3.5 ft³/s (0.099 m³/s) Jan. 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	4.6	5.0	5.5	5.6	5.8	6.3	5.8	4.8	6.0	5.6	5.0
2	5.6	4.8	5.2	5.0	5.6	5.4	6.0	5.8	4.8	6.3	5.4	5.0
3	6.0	4.6	4.8	4.5	5.4	5.2	6.0	6.0	4.8	6.0	5.2	5.0
4	5.8	4.6	4.8	4.5	5.0	5.0	6.3	6.0	4.6	6.0	5.2	5.0
5	5.8	4.6	4.8	5.0	4.0	5.0	6.5	6.0	4.6	6.0	5.2	5.2
6	5.8	4.8	4.8	4.0	4.0	5.0	6.8	6.0	5.2	6.0	5.4	5.4
7	5.6	4.8	4.8	3.5	4.8	5.4	6.8	6.0	5.0	6.0	5.2	5.2
8	5.4	4.8	4.8	3.5	5.4	5.8	6.8	6.0	4.8	6.3	5.2	5.2
9	5.2	4.8	4.8	4.0	5.4	5.8	7.2	6.0	4.8	6.3	5.2	5.2
10	5.2	4.8	4.8	4.5	5.2	5.6	6.8	5.8	4.8	6.0	5.4	5.2
11	5.2	5.0	4.8	5.0	5.4	5.4	6.8	5.4	4.8	6.3	5.0	5.2
12	5.4	5.2	4.8	5.0	5.5	4.0	6.5	5.4	5.0	6.0	5.0	5.0
13	5.4	5.4	4.7	4.5	5.5	5.0	6.0	5.4	5.0	5.8	5.2	5.0
14	5.4	5.6	4.5	5.0	5.6	5.2	6.0	5.4	5.0	5.8	5.4	5.0
15	5.2	5.2	4.5	5.5	5.5	5.2	5.8	5.6	5.6	6.0	5.2	5.0
16	5.2	5.2	4.5	5.5	5.5	5.8	6.0	5.4	5.8	6.0	5.2	5.2
17	5.2	5.2	4.0	5.6	5.5	5.4	5.8	5.2	5.8	6.0	5.2	5.2
18	5.2	5.2	4.5	5.6	5.5	5.4	5.8	5.2	5.8	5.8	5.2	5.2
19	5.2	5.0	5.0	5.6	5.7	5.4	5.8	5.2	5.6	5.6	5.2	5.2
20	5.0	4.8	5.0	5.6	5.7	4.5	6.0	5.0	5.6	5.8	5.2	5.2
21	5.0	4.6	5.5	5.6	5.7	5.5	6.0	5.0	5.4	5.8	5.0	5.2
22	5.0	4.5	6.0	5.6	5.8	6.0	6.0	5.0	5.8	5.8	5.0	5.2
23	5.0	4.5	6.8	5.6	5.8	6.0	6.0	5.0	6.3	5.6	5.2	5.0
24	5.0	4.6	6.5	5.4	5.8	6.0	6.0	5.0	6.0	5.6	5.2	5.0
25	4.8	4.8	6.5	5.2	5.8	6.0	6.0	5.0	5.8	5.6	5.2	5.0
26	4.8	4.8	6.0	5.0	5.8	6.0	6.0	4.8	6.0	5.8	5.0	5.0
27	4.8	4.8	6.0	5.4	5.7	6.0	5.8	4.8	6.0	5.8	5.0	5.0
28	4.8	4.8	6.0	5.6	5.6	6.0	5.8	4.8	5.8	5.8	5.0	5.0
29	4.7	5.0	6.0	5.6	5.6	6.0	5.8	4.8	5.8	5.8	5.0	5.2
30	4.6	5.2	6.0	5.6	---	6.5	5.8	4.8	6.0	5.6	5.0	5.0
31	4.6	---	5.5	5.6	---	6.5	---	4.8	---	5.6	5.2	---
TOTAL	161.5	146.6	161.7	157.1	157.4	171.8	185.2	166.4	161.1	182.8	160.6	153.2
MEAN	5.21	4.89	5.22	5.07	5.43	5.54	6.17	5.37	5.37	5.90	5.18	5.11
MAX	6.0	5.6	6.8	5.6	5.8	6.5	7.2	6.0	6.3	6.3	5.6	5.4
MIN	4.6	4.5	4.0	3.5	4.0	4.0	5.8	4.8	4.6	5.6	5.0	5.0
AC-FT	320	291	321	312	312	341	367	330	320	363	319	304

CAL YR 1975 TOTAL 1669.8 MEAN 4.57 MAX 7.0 MIN 2.0 AC-FT 3310
WTR YR 1976 TOTAL 1965.4 MEAN 5.37 MAX 7.2 MIN 3.5 AC-FT 3900

06429900 SAND CREEK AT RANCH A, NEAR BEULAH, WY

LOCATION.--Lat 44°29'42", long 104°06'34", in SW¼ sec.18, T.52 N., R.60 W., Crook County, Hydrologic Unit 10120203, on right bank 0.35 mi (0.6 km) downstream from headquarters building of Fish Genetic Laboratory, 0.9 mi (1.4 km) upstream from Hospital Gulch, and 3.6 mi (5.8 km) south of Beulah.

DRAINAGE AREA.--260 mi² (673 km²).

PERIOD OF RECORD.--October 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 3,750 ft (1,143 m), from topographic map.

REMARKS.--Records good.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 700 ft³/s (19.8 m³/s) June 15, 1976, gage height, 7.19 ft (2.192 m) from rating curve extended above 60 ft³/s (1.70 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 17 ft³/s (0.481 m³/s) Feb. 6, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 700 ft³/s (19.8 m³/s) June 15, gage height, 7.19 ft (2.192 m), from rating curve extended above 60 ft³/s (1.70 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 17 ft³/s (0.481 m³/s) Feb. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	25	23	24	18	20	21	22	27	36	36	31
2	25	25	23	24	18	20	21	22	25	36	36	30
3	25	25	23	23	18	19	21	21	25	36	36	29
4	25	25	23	22	18	19	21	21	26	36	36	29
5	25	25	23	22	18	19	21	22	27	34	35	29
6	25	25	22	19	17	18	22	20	27	34	35	29
7	25	25	23	18	18	18	21	20	27	32	34	29
8	25	25	23	19	18	18	20	20	27	32	33	29
9	25	25	23	20	18	18	20	20	27	33	33	29
10	25	25	22	20	18	20	21	22	27	34	34	30
11	25	25	23	19	18	20	21	22	27	35	34	29
12	25	25	23	20	18	20	21	22	27	35	33	28
13	25	25	23	20	18	20	22	22	27	34	33	28
14	25	25	22	20	18	20	22	23	71	34	32	27
15	25	26	23	21	18	20	22	23	369	32	32	26
16	25	26	23	20	18	20	25	22	105	32	32	27
17	25	27	21	20	18	20	27	35	138	33	31	27
18	25	27	21	20	18	20	23	25	113	33	31	25
19	25	27	22	19	18	20	22	22	92	33	31	25
20	25	27	22	19	18	20	22	23	65	34	31	25
21	25	27	22	19	18	20	22	23	48	34	30	24
22	25	26	22	19	18	20	22	23	40	34	30	24
23	25	27	23	19	18	20	22	24	57	34	30	24
24	25	27	23	18	18	20	22	24	39	34	30	24
25	25	26	23	18	19	20	22	24	38	34	29	25
26	25	25	23	18	20	21	23	24	38	35	29	25
27	25	25	23	18	20	21	23	24	38	36	28	24
28	25	25	23	18	20	21	22	25	38	35	28	24
29	25	25	23	18	20	21	22	25	37	36	27	24
30	25	24	23	18	---	21	22	26	37	36	27	24
31	25	---	24	18	---	21	---	26	---	36	28	---
TOTAL	775	767	703	610	530	615	658	717	1709	1062	984	803
MEAN	25.0	25.6	22.7	19.7	18.3	19.8	21.9	23.1	57.0	34.3	31.7	26.8
MAX	25	27	24	24	20	21	27	35	369	36	36	31
MIN	25	24	21	18	17	18	20	20	25	32	27	24
AC-FT	1540	1520	1390	1210	1050	1220	1310	1420	3390	2110	1950	1590

CAL YR 1975 TOTAL 8978 MEAN 24.6 MAX 34 MIN 19 AC-FT 17810
WTR YR 1976 TOTAL 9933 MEAN 27.1 MAX 369 MIN 17 AC-FT 19700

06430000 MURRAY DITCH AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'35", long 104°02'58", in SW¼SW¼ sec.7, T.7 N., R.1 E., Butte County, SD, Hydrologic Unit 10120203, on right bank 15 ft (5 m) downstream from State line and 12 mi (19 km) southwest of Belle Fourche, SD.

PERIOD OF RECORD.--June 1954 to current year (irrigation seasons only prior to October 1959).

GAGE.--Water-stage recorder. Altitude of gage is 3,440 ft (1,050 m), from topographic map.

REMARKS.--Records fair. Ditch diverts water from left bank of Redwater Creek, 2.0 mi (3.2 km) upstream, for irrigation of about 700 acres (283 hm²). Flow maintained during irrigation season only.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 37 ft³/s (1.05 m³/s) July 17, 1973; no flow for long periods in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.5	9.1						0	1.8	0	11	15
2	4.6	3.7						0	4.4	0	12	14
3	5.6	4.9						0	4.2	0	12	16
4	4.5	9.1						0	4.1	0	12	17
5	3.9	11						0	3.8	0	12	16
6	3.6	6.0						0	6.7	0	11	16
7	5.1	1.6						0	7.3	0	11	17
8	7.4	3.4						0	7.3	0	11	17
9	3.6	4.9						0	7.2	0	10	14
10	.40	4.8						0	7.2	1.4	11	12
11	2.4	4.7						0	7.0	6.7	11	12
12	4.2	6.2						0	6.9	7.8	10	12
13	3.3	8.3						0	6.8	5.2	9.5	12
14	0	8.4						5.6	8.1	4.8	9.7	11
15	0	8.7						17	3.3	4.6	9.5	10
16	0	8.1						20	.72	4.5	8.7	9.4
17	.83	8.1						13	1.4	5.4	8.7	8.1
18	2.7	7.2						8.4	.21	6.2	8.4	7.4
19	6.8	6.7						7.6	0	6.0	8.8	6.3
20	7.2	8.3						6.6	0	7.8	7.0	5.6
21	6.8	10						7.8	0	9.5	10	5.4
22	7.5	8.1						7.8	0	9.7	13	4.7
23	8.0	3.9						7.6	0	9.8	12	4.4
24	7.6	2.0						7.6	0	9.7	12	4.0
25	7.5	1.3						7.6	0	9.5	12	3.7
26	5.8	.60						7.6	0	9.2	13	3.5
27	6.3	.05						6.8	0	9.7	14	3.1
28	6.7	0						6.7	0	11	14	2.8
29	5.8	0						6.7	0	9.8	15	2.5
30	5.7	0			---			8.0	0	9.1	15	2.4
31	8.7	---			---		---	3.6	---	9.5	15	---
TOTAL	146.03	159.15	0	0	0	0	0	156.0	88.43	166.9	349.3	284.3
MEAN	4.71	5.31	0	0	0	0	0	5.03	2.95	5.38	11.3	9.48
MAX	8.7	11	0	0	0	0	0	20	8.1	11	15	17
MIN	0	0	0	0	0	0	0	0	0	0	7.0	2.4
AC-FT	290	316	0	0	0	0	0	309	175	331	693	564

CAL YR 1975 TOTAL 1555.38 MEAN 4.26 MAX 34 MIN 0 AC-FT 3090
WTR YR 1976 TOTAL 1350.11 MEAN 3.69 MAX 20 MIN 0 AC-FT 2680

8

06430500 REDWATER CREEK AT WYOMING-SOUTH DAKOTA STATE LINE

LOCATION.--Lat 44°34'26", long 104°02'54", in NW¼NW¼ sec.18, T.7 N., R.1 E., Butte County, SD, Hydrologic Unit 10120203, on left bank 800 ft (244 m) downstream from State line, 5.7 mi (9.2 km) upstream from Crow Creek, and 12 mi (19 km) southwest of Belle Fourche, SD.

DRAINAGE AREA.--471 mi² (1,220 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1929 to September 1931 and February 1936 to July 1937 (published as "near Beulah, WY"), June 1954 to current year.

REVISED RECORDS.--WSP 1309: 1931(M), 1936-37(M).

GAGE.--Water-stage recorder. Altitude of gage is 3,410 ft (1,040 m), from topographic map. Apr. 25, 1929, to Sept. 30, 1931, and Feb. 28, 1936, to July 31, 1937, nonrecording gage at site 2 mi (3 km) upstream at different datum.

REMARKS.--Records good except those for winter periods, which are fair. Large diversions for irrigation above station. Total flow passing State line may be obtained by adding flow of Murray ditch (see sta 06430000).

AVERAGE DISCHARGE.--24 years, 36.6 ft³/s (1.037 m³/s), 26,520 acre-ft/yr (32.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,440 ft³/s (69.1 m³/s) Aug. 22, 1973, gage height, 12.19 ft (3.716 m); no flow Aug. 13-15, 1929.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 150 ft³/s (4.25 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
May 30	1845	164	4.64	3.58	1.091	July 13	0015	542	15.3	5.68	1.731
June 15	0845	*1500	42.5	9.56	2.914						

Minimum daily discharge, 22 ft³/s (0.623 m³/s) Aug. 22-25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	33	35	40	38	37	37	35	41	44	68	38	28
2	33	38	39	37	37	37	36	42	38	68	36	29
3	33	35	39	37	37	37	36	41	37	67	36	29
4	32	32	39	38	37	36	36	41	35	65	35	27
5	32	32	38	39	35	37	36	42	35	62	36	25
6	34	34	37	38	35	35	36	41	34	58	37	24
7	35	35	37	38	37	35	37	40	32	59	36	25
8	32	35	37	38	37	36	36	40	32	59	37	25
9	35	35	38	37	39	39	36	40	31	58	37	26
10	35	37	38	37	40	39	36	41	31	55	36	28
11	36	38	38	37	38	38	36	41	32	49	36	29
12	36	35	37	37	38	36	37	41	32	66	36	27
13	38	35	38	36	38	36	37	40	32	121	37	28
14	39	36	37	36	38	37	39	34	80	68	36	29
15	38	36	37	37	38	35	38	31	732	65	36	30
16	37	38	37	36	38	35	51	29	336	63	35	30
17	36	38	37	38	38	36	54	31	570	60	35	32
18	35	38	36	38	38	36	51	29	402	55	36	32
19	32	38	36	36	37	36	50	28	239	55	36	34
20	34	36	37	37	37	36	49	29	161	52	36	34
21	34	35	38	37	37	36	50	30	120	46	29	35
22	35	36	38	37	37	35	49	29	101	42	22	39
23	35	38	37	38	37	35	48	29	110	42	22	39
24	35	38	38	38	38	34	43	29	91	41	22	38
25	34	39	38	37	37	34	41	29	85	40	22	39
26	37	38	37	40	37	34	41	29	80	40	25	39
27	38	39	38	37	37	35	42	29	74	38	25	38
28	38	39	37	36	37	36	42	30	68	34	26	38
29	38	38	37	37	36	35	41	32	67	35	28	38
30	38	35	38	37	---	35	41	47	68	35	29	37
31	35	---	39	37	---	36	---	42	---	35	28	---
TOTAL	1092	1091	1167	1156	1082	1114	1240	1097	3829	1701	1001	951
MEAN	35.2	36.4	37.6	37.3	37.3	35.9	41.3	35.4	128	54.9	32.3	31.7
MAX	39	39	40	40	40	39	54	47	732	121	38	39
MIN	32	32	36	36	35	34	35	28	31	34	22	24
AC-FT	2170	2160	2310	2290	2150	2210	2460	2180	7590	3370	1990	1890

CAL YR 1975 TOTAL 14022.3 MEAN 38.4 MAX 105 MIN 7.6 AC-FT 27810
WTR YR 1976 TOTAL 16521.0 MEAN 45.1 MAX 732 MIN 22 AC-FT 32770

06430500 REDWATER CREEK AT WYOMING-SOUTH DAKOTA STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969-70, 1972 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT 08...	1115	9.0	33	43	3.8
NOV 04...	1710	11.5	32	67	5.8
DEC 02...	1515	6.0	39	41	4.3
JAN 14...	1010	.5	36	65	6.3
FEB 11...	1000	6.0	38	44	4.5
MAR 03...	1540	1.0	36	86	8.4
APR 06...	1330	12.0	35	50	4.7
MAY 18...	1445	19.5	30	22	1.8
AUG 04...	1900	20.5	35	85	8.0
SEP 01...	1220	16.5	28	36	2.7

06454000 NIOBRARA RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 42°39'33", long 104°03'54", in SE¼SW¼ sec.15, T.31 N., R.60 W., Niobrara County, WY, Hydrologic Unit 10150002, on left bank 0.2 mi (0.3 km) downstream from Van Tassel Creek, 0.3 mi (0.5 km) upstream from Wyoming-Nebraska State line, and 3 mi (5 km) east of Van Tassel, WY.

DRAINAGE AREA.--450 mi^2 (1,170 km^2), approximately.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,687.70 ft (1,428.811 m) above mean sea level, datum of 1956.

REMARKS.--Records good. Diversions for irrigation of about 4,700 acres (19.0 km^2) above station.

AVERAGE DISCHARGE.--21 years, 4.25 ft^3/s (0.120 m^3/s), 3,080 acre-ft/yr (3.80 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 800 ft^3/s (22.7 m^3/s) July 17, 1969, gage height, 6.92 ft (2.109 m) in gage well, 6.75 ft (2.057 m), from floodmarks, from rating curve extended above 63 ft^3/s (1.78 m^3/s) on basis of computation of peak flow through culvert and over road; minimum daily, 0.54 ft^3/s (0.015 m^3/s) Aug. 9, 10, 12, 1975.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 20 ft^3/s (0.57 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan 2	0930	--	--	*a5.05	1.539
June 14	2215	*26	0.74	2.32	.707

a backwater from snow.

Minimum daily discharge, 1.1 ft^3/s (0.031 m^3/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.6	2.4	2.2	4.1	4.3	2.7	2.5	3.3	1.8	1.6	1.4
2	1.5	1.5	2.7	2.0	4.1	4.0	2.7	5.6	3.0	2.0	1.8	1.3
3	1.5	1.7	2.7	1.8	4.1	3.5	2.7	6.1	2.7	2.4	1.7	1.3
4	1.4	2.8	2.6	2.0	3.8	3.1	3.2	4.6	2.8	2.4	1.4	1.2
5	1.5	2.6	2.6	2.0	3.8	2.7	4.0	3.2	2.7	2.3	1.4	1.2
6	1.5	2.2	2.5	1.8	3.5	2.6	4.4	2.8	2.8	2.2	1.4	1.1
7	1.6	2.0	2.6	1.8	2.8	2.7	4.4	2.7	2.8	2.2	1.3	1.2
8	1.6	1.8	2.6	2.0	2.2	2.9	4.4	2.8	3.0	1.9	1.3	1.3
9	1.7	1.8	2.7	2.6	2.6	2.9	4.2	2.7	3.0	2.0	1.7	1.4
10	1.6	1.8	2.8	3.0	2.3	3.2	3.9	2.7	2.8	1.8	1.5	1.3
11	1.7	1.9	2.8	2.7	2.2	3.2	3.2	2.7	2.4	1.9	1.6	1.3
12	1.7	1.9	3.0	2.7	2.7	3.0	3.1	2.9	2.1	1.7	1.6	1.4
13	1.7	2.0	2.9	2.7	2.4	3.2	3.1	2.9	2.0	2.0	1.6	1.4
14	1.8	2.0	2.7	2.5	2.5	3.2	3.1	2.5	7.2	1.7	1.6	1.4
15	1.8	2.3	2.7	2.6	2.7	3.2	2.7	2.5	13	1.6	1.5	1.4
16	1.7	2.5	2.8	2.6	2.7	3.0	3.9	2.6	6.9	1.6	1.6	1.5
17	1.7	2.6	2.5	2.7	2.7	2.8	5.5	2.2	5.2	1.5	1.7	1.4
18	1.7	2.8	2.4	3.0	3.0	2.8	3.6	1.9	5.1	1.6	1.7	1.4
19	1.6	2.9	2.4	2.7	3.2	2.8	2.9	1.7	4.5	1.5	1.7	1.6
20	1.6	2.6	2.4	2.6	2.9	3.0	3.2	1.8	3.5	2.0	1.6	1.6
21	1.6	2.2	2.6	2.4	2.7	3.0	6.1	2.5	2.6	2.2	1.4	1.5
22	1.5	2.2	2.3	2.3	2.7	3.4	6.5	3.3	2.7	2.3	1.4	1.6
23	1.9	2.4	2.2	2.3	2.7	3.7	5.3	9.1	3.0	1.9	1.3	1.5
24	2.4	2.6	2.1	2.3	2.8	3.7	3.8	12	2.5	1.5	1.3	1.6
25	2.2	4.1	2.2	2.1	3.2	3.4	2.9	5.4	2.1	1.5	1.3	1.8
26	2.7	2.7	2.3	2.0	3.3	3.1	2.8	5.6	1.6	1.4	1.3	1.8
27	2.8	2.6	2.5	1.9	3.5	3.0	3.6	3.9	1.5	1.4	1.4	1.8
28	2.1	2.5	2.6	2.1	3.9	2.8	3.4	2.4	1.5	1.4	1.3	1.7
29	1.9	2.7	2.7	2.3	3.9	2.8	2.8	2.6	1.6	1.4	1.4	1.7
30	1.8	2.9	2.7	2.9	---	2.7	2.8	4.5	1.7	1.4	1.3	1.7
31	1.7	---	2.5	3.8	---	2.7	---	3.9	---	1.4	1.4	---
TOTAL	54.9	70.2	79.5	74.4	89.0	96.4	110.9	114.6	101.6	55.9	46.1	43.8
MEAN	1.77	2.34	2.56	2.40	3.07	3.11	3.70	3.70	3.39	1.80	1.49	1.46
MAX	2.8	4.1	3.0	3.8	4.1	4.3	6.5	12	13	2.4	1.8	1.8
MIN	1.4	1.5	2.1	1.8	2.2	2.6	2.7	1.7	1.5	1.4	1.3	1.1
AC-FT	109	139	158	148	177	191	220	227	202	111	91	87

CAL YR 1975 TOTAL 958.38 MEAN 2.63 MAX 17 MIN .54 AC-FT 1900
WTR YR 1976 TOTAL 937.30 MEAN 2.56 MAX 13 MIN 1.1 AC-FT 1860

06454100 NIOBRARA RIVER AT AGATE, NE

LOCATION.--Lat 42°25'22", long 103°47'28", in SW¼ sec.6, T.28 N., R.55 W., Sioux County, Hydrologic Unit 10150002, on right bank 10 ft (3 m) upstream from timber farm-vehicle bridge, 300 ft (91 m) upstream from bridge on State Highway 29, 0.2 mi (0.3 km) northwest of Agate, and 14.5 mi (23.3 km) upstream from Whistle Creek.

DRAINAGE AREA.--840 mi² (2,180 km²), approximately.

PERIOD OF RECORD.--October 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,440 ft (1,353 m), from topographic map. Prior to Nov. 3, 1960, nonrecording gage at present site and datum.

REMARKS.--Records good. Diversions for irrigation of about 6,700 acres (27.1 km²) above station.

AVERAGE DISCHARGE.--19 years, 14.4 ft³/s (0.408 m³/s), 10,430 acre-ft/yr (12.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft³/s (5.13 m³/s) June 23, 1959, gage height, 5.00 ft (1.524 m), from floodmark; minimum daily, 1.0 ft³/s (0.028 m³/s) Mar. 29, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27 ft³/s (0.76 m³/s) Mar. 16, gage height, 2.98 ft (0.908 m), no peak above base of 35 ft³/s (0.99 m³/s); minimum daily, 3.1 ft³/s (0.088 m³/s) Jan. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.4	11	12	3.4	16	23	18	14	17	5.7	6.9	4.3
2	9.4	12	16	3.1	16	22	17	14	15	5.9	7.8	4.1
3	6.2	12	15	3.4	16	20	16	14	7.9	6.1	7.8	4.4
4	4.9	12	17	3.3	16	20	16	14	5.6	6.1	7.2	4.4
5	4.6	12	16	3.2	17	18	16	14	9.1	5.6	7.0	4.5
6	4.9	12	16	3.6	17	21	16	14	8.1	5.7	6.7	4.9
7	5.3	12	14	6.8	17	21	17	13	6.1	5.8	6.3	5.2
8	5.5	12	16	9.3	17	21	17	13	6.0	5.3	5.9	6.0
9	5.7	11	15	8.8	18	20	17	13	5.9	4.9	6.0	6.1
10	5.7	11	15	8.8	18	21	16	13	4.9	3.8	6.1	5.8
11	6.1	11	15	9.2	18	21	16	13	4.8	3.6	5.9	5.6
12	6.0	11	16	9.7	19	14	15	13	4.3	3.5	5.9	5.7
13	5.6	11	16	10	20	21	15	13	4.4	3.6	5.6	6.2
14	6.1	11	12	11	21	22	16	13	5.6	3.8	5.5	6.3
15	6.4	12	13	11	22	19	15	13	9.5	3.8	5.4	6.5
16	6.2	11	15	11	23	22	16	13	9.0	3.9	5.6	6.7
17	5.9	11	14	11	24	23	18	13	5.3	3.7	5.5	7.1
18	6.3	11	11	12	23	22	17	13	6.9	3.7	5.5	7.9
19	6.1	11	13	14	20	24	16	13	7.1	3.8	5.4	10
20	6.4	11	15	14	20	25	15	13	6.3	4.4	5.6	9.9
21	6.7	11	15	14	19	25	14	14	5.9	11	5.5	9.2
22	7.1	12	15	15	20	23	14	15	6.1	11	5.2	8.8
23	7.5	12	14	15	20	21	13	20	7.7	7.2	5.9	9.0
24	8.0	13	14	15	21	20	13	21	7.6	6.6	6.3	8.6
25	8.5	14	15	15	21	19	13	18	6.8	6.0	6.4	9.0
26	9.8	13	16	14	22	20	14	18	6.2	5.8	6.4	9.2
27	11	14	16	14	23	19	16	15	6.1	5.9	4.8	9.6
28	12	14	16	15	23	18	16	13	5.9	6.4	4.0	9.5
29	11	14	14	15	23	18	15	13	5.8	6.4	4.0	9.5
30	12	12	16	16	---	18	15	16	5.6	6.4	3.9	9.5
31	11	---	9.3	16	---	18	---	18	---	6.5	4.1	---
TOTAL	227.3	357	452.3	330.6	570	639	468	447	212.5	171.9	180.1	213.5
MEAN	7.33	11.9	14.6	10.7	19.7	20.6	15.6	14.4	7.08	5.55	5.81	7.12
MAX	12	14	17	16	24	25	18	21	17	11	7.8	10
MIN	4.6	11	9.3	3.1	16	14	13	13	4.3	3.5	3.9	4.1
AC-FT	451	708	897	656	1130	1270	928	887	421	341	357	423

CAL YR 1975 TOTAL 4404.5 MEAN 12.1 MAX 42 MIN 1.0 AC-FT 8740
WTR YR 1976 TOTAL 4269.2 MEAN 11.7 MAX 25 MIN 3.1 AC-FT 8470

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO

LOCATION.--Lat 40°56'10", long 106°20'21", in SW¼SE¼ sec.11, T.11 N., R.80 W., Jackson County, Hydrologic Unit 10180001, on right bank 350 ft (110 m) downstream from bridge on State Highway 125, 0.8 mi (1.3 km) upstream from Camp Creek, 4.2 mi (6.8 km) northwest of Northgate, and 4.4 mi (7.1 km) south of Colorado-Wyoming State line.

DRAINAGE AREA.--1,431 mi² (3,706 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May to November 1904 (published as "near Pinkhampton"), May 1915 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1916-21, 1929(M), 1930-32. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 7,810.39 ft (2,380.607 m) above mean sea level. See WSP 1730 for history of changes prior to Apr. 8, 1918. Apr. 8, 1918, to Aug. 21, 1961, water-stage recorder at site 0.8 mi (1.3 km) downstream at datum 3.36 ft (1.024 m) lower.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 130,000 acres (526 km²) of hay meadows above station. Transbasin diversions above station to Cache la Poudre River basin (see elsewhere in this report).

AVERAGE DISCHARGE.--61 years, 433 ft³/s (12.26 m³/s), 313,700 acre-ft/yr (387 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,720 ft³/s (190 m³/s) June 11, 1923, gage height, 6.24 ft (1.902 m), site and datum then in use; maximum gage height recorded, 8.84 ft (2.694 m) Apr. 9, 1962, ice jam; minimum daily discharge, 19 ft³/s (0.54 m³/s) July 17-19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,740 ft³/s (49.3 m³/s) May 23, gage height, 4.60 ft (1.402 m); maximum gage height, 5.64 ft (1.719 m) Apr. 7 (backwater from ice); minimum daily discharge, 68 ft³/s (1.93 m³/s) Jan. 26, 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	100	84	78	70	100	200	444	558	520	330	124
2	88	100	84	76	70	100	220	380	515	566	492	119
3	90	100	84	74	70	100	250	400	561	613	539	118
4	90	100	84	74	70	100	290	428	613	589	543	102
5	90	95	88	74	72	100	300	462	604	571	464	95
6	85	90	88	74	74	105	260	474	631	545	370	90
7	82	86	88	72	74	110	300	552	707	512	308	91
8	82	82	90	70	74	110	350	620	731	477	265	116
9	86	78	90	70	78	110	450	566	826	453	296	110
10	89	78	90	70	80	115	600	462	870	441	316	103
11	93	78	90	70	80	120	849	434	935	436	291	102
12	90	78	90	70	80	120	858	531	875	381	293	97
13	91	78	90	70	80	120	894	612	820	347	284	99
14	101	78	90	70	80	120	903	444	748	342	260	104
15	110	80	90	70	80	120	831	412	983	312	244	113
16	116	80	90	70	80	130	741	504	919	277	218	133
17	116	80	90	70	80	140	644	474	755	284	194	142
18	113	80	90	70	80	150	531	400	844	299	189	148
19	111	80	86	70	80	160	450	422	956	524	192	137
20	108	80	84	70	80	150	422	504	756	659	188	148
21	104	80	84	70	80	150	400	750	551	591	171	146
22	102	80	84	70	82	160	417	1190	444	513	158	124
23	94	80	84	70	82	170	444	1680	739	446	153	117
24	90	80	84	70	86	180	456	1640	1100	393	151	126
25	80	80	84	70	90	190	417	1400	835	332	146	152
26	80	80	84	68	90	200	434	1220	600	336	142	157
27	85	80	84	68	92	210	417	984	501	405	148	142
28	90	80	82	70	95	210	355	763	480	412	182	123
29	94	80	80	70	96	210	355	640	489	351	153	116
30	96	80	80	70	---	200	412	604	535	310	138	109
31	98	---	80	70	---	190	---	620	---	333	128	---
TOTAL	2933	2501	2670	2198	2325	4450	14450	21016	21481	13570	7946	3595
MEAN	94.6	83.4	86.1	70.9	80.2	144	482	678	716	438	256	120
MAX	116	100	90	78	96	210	903	1680	1100	659	543	157
MIN	80	78	80	68	70	100	200	380	444	277	128	90
AC-FT	5820	4960	5300	4360	4610	8830	28660	41690	42610	26920	15760	7130

CAL YR 1975 TOTAL 152102 MEAN 417 MAX 2340 MIN 64 AC-FT 301700
WTR YR 1976 TOTAL 99135 MEAN 271 MAX 1680 MIN 68 AC-FT 196600

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT									
19...	0845	112	3.5	2	9.9	B30	100	0	28
NOV									
16...	0930	114	1.5	2	9.5	B6	120	0	33
DEC									
16...	0830	114	.5	3	9.0	B12	120	0	34
JAN									
18...	0800	A70	.5	2	12.8	B5	260	0	72
FEB									
15...	0830	A80	.0	2	9.2	B8	110	0	31
MAR									
18...	0815	A150	.0	5	9.8	B7	99	0	28
APR									
20...	0830	428	2.0	7	10.3	B3	110	3	29
MAY									
23...	0900	439	8.0	45	8.5	B520	96	0	25
JUN									
21...	0845	390	15.0	1	6.9	B32	170	0	44
JUL									
19...	0930	486	16.5	10	6.7	B840	140	0	38
AUG									
16...	0930	272	14.0	1	8.4	38	100	0	28
SEP									
14...	0730	340	12.0	1	8.3	42	99	0	27

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT									
19...	8.1	16	.7	2.1	140	0	115	25	3.6
NOV									
16...	8.1	17	.7	2.1	150	0	123	26	7.8
DEC									
16...	8.8	15	.6	2.1	150	0	123	28	2.4
JAN									
18...	19	31	.8	4.4	320	0	263	57	3.5
FEB									
15...	8.0	15	.6	3.7	140	0	115	26	4.2
MAR									
18...	7.1	15	.7	2.1	130	0	107	23	1.7
APR									
20...	8.4	18	.8	3.3	130	0	107	38	4.0
MAY									
23...	8.0	24	1.1	3.5	120	0	98	52	5.4
JUN									
21...	14	27	.9	2.3	210	0	172	40	3.7
JUL									
19...	12	24	.9	2.1	180	0	148	37	3.7
AUG									
16...	7.4	13	.6	2.8	130	0	107	21	1.9
SEP									
14...	7.6	14	.6	1.6	130	0	107	21	1.8

06620000 NORTH PLATTE RIVER NEAR NORTHGATE, CO--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	DIS_SOLVED NITRATE (NO3) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT 19...	.5	10	161	.22	48.7	.02	.10	.01
NOV 16...	.5	12	180	.24	55.4	.02	.10	.02
DEC 16...	.5	14	178	.24	54.8	.00	.00	.01
JAN 18...	1.1	33	376	.51	71.1	.09	.40	.03
FEB 15...	.4	11	166	.23	35.9	.00	.00	.02
MAR 18...	.4	11	151	.21	61.2	.02	.10	.03
APR 20...	.4	14	177	.24	205	.07	.30	.03
MAY 23...	.5	11	187	.25	222	.16	.70	.18
JUN 21...	.6	12	245	.33	258	.09	.40	.03
JUL 19...	.6	8.6	213	.29	280	.09	.40	.05
AUG 16...	.6	6.9	146	.20	107	.00	.00	.02
SEP 14...	.6	5.3	145	.20	133	.25	1.1	.01

DATE	TIME	TOTAL PCB (UG/L)	PCB IN BOTTOM MA-TERIAL (UG/KG)	POLY-CHLO-RINATED NAPH-THA-LENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA-TERIAL (UG/KG)
SEP 14...	0730	.0	0	.00	.00	.0	.0	0	.00	.0	.00	.2

DATE	TOTAL DDT (UG/L)	DDT IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DI-AZINON (UG/L)	TOTAL DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG)
SEP 14...	.00	.0	.00	.00	.0	.00	.0	.00	.00	.0	.00	.0

DATE	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL MALA-THION (UG/L)	TOTAL METHYL PARA-THION (UG/L)	TOTAL METHYL TRI-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
SEP 14...	.00	.0	.00	.00	.00	.00	0	0	.00	.00	.00	.00

06622700 NORTH BRUSH CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°22'10", long 106°31'22", in NE¼SE¼NW¼ sec.8, T.16 N., R.81 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 10 ft (3 m) downstream from logging road bridge, 0.7 mi (1.1 km) downstream from Lincoln Creek, 1.6 mi (2.6 km) upstream from South Brush Creek, and 16 mi (26 km) southeast of Saratoga.

DRAINAGE AREA.--37.4 mi² (96.9 km²).

PERIOD OF RECORD.--May 1960 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,020 ft (2,444 m), from topographic map. Prior to June 17, 1971, at site 110 ft (34 m) downstream at different datum. June 17 to Sept. 21, 1971, at site 10 ft (3 m) downstream at present datum.

REMARKS.--Records good except those for winter period and period of no gage-height record, Nov. 23 to May 1, which are poor. No diversion above station.

AVERAGE DISCHARGE.--16 years, 51.4 ft³/s (1.456 m³/s), 37,240 acre-ft/yr (45.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,120 ft³/s (31.7 m³/s) June 7, 1964, gage height, 5.75 ft (1.753 m), site and datum then in use, from rating curve extended above 480 ft³/s (13.6 m³/s); minimum daily, 5.0 ft³/s (0.14 m³/s) Aug. 25, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 350 ft³/s (9.91 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 5	2130	*372	10.5	3.25	0.991

Minimum daily discharge, 7.8 ft³/s (0.22 m³/s) Jan. 1, 2, Mar. 20-22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.0	10	9.8	7.8	9.0	9.1	8.8	23	249	186	27	11
2	8.7	11	9.9	7.8	9.0	8.9	9.0	26	252	152	39	10
3	8.7	10	10	8.0	8.9	8.5	9.4	29	272	122	33	9.7
4	8.4	9.7	10	8.1	8.6	8.2	9.8	34	276	104	22	9.7
5	8.2	9.7	10	8.2	8.2	8.0	10	39	283	92	19	9.4
6	8.2	10	10	8.3	8.0	8.0	11	40	262	81	17	10
7	8.2	9.0	10	8.4	8.1	8.1	11	37	231	68	16	17
8	9.7	9.4	10	8.4	8.3	8.1	11	38	222	64	15	13
9	10	9.0	10	8.4	8.5	8.2	11	42	240	57	17	11
10	11	8.7	9.9	8.5	8.7	8.2	12	56	237	49	15	11
11	11	8.5	9.9	8.5	8.8	8.3	12	68	213	45	15	11
12	10	8.5	9.9	8.6	8.9	8.2	12	72	174	39	15	11
13	10	8.7	9.8	8.6	8.9	8.2	13	80	118	42	14	11
14	10	9.0	9.7	8.6	9.0	8.1	13	122	78	29	14	11
15	11	9.4	9.6	8.7	9.0	8.0	13	132	109	24	13	11
16	12	9.8	9.4	8.7	9.0	8.0	13	102	145	22	13	18
17	11	10	9.2	8.8	9.0	8.0	13	115	138	20	12	18
18	12	9.9	9.0	8.7	8.9	7.9	12	171	150	20	12	17
19	11	9.6	8.9	8.6	8.8	7.9	12	192	165	24	12	16
20	11	9.4	8.7	8.5	8.7	7.8	11	204	225	22	12	16
21	10	9.6	8.6	8.5	8.5	7.8	12	243	252	35	11	15
22	9.7	9.6	8.5	8.6	8.5	7.8	12	243	240	22	11	14
23	8.2	9.7	8.5	8.6	8.6	7.9	13	213	237	20	11	14
24	8.0	9.6	8.5	8.5	8.7	8.0	14	201	155	18	11	13
25	8.3	9.6	8.6	8.4	8.8	8.2	14	231	135	18	11	13
26	9.2	9.5	8.6	8.4	8.9	8.1	15	228	138	42	10	12
27	9.8	9.6	8.7	8.5	9.0	8.0	15	266	135	36	12	12
28	10	9.6	8.7	8.6	9.1	8.0	15	276	140	22	11	11
29	11	9.7	8.7	8.7	9.2	8.1	17	252	145	19	10	11
30	10	9.7	8.5	8.8	---	8.2	20	222	150	20	10	11
31	11	---	8.1	8.9	---	8.5	---	213	---	34	10	---
TOTAL	304.3	285.5	287.7	262.7	253.6	252.3	374.0	4210	5766	1548	470	377.8
MEAN	9.82	9.52	9.28	8.47	8.74	8.14	12.5	136	192	49.9	15.2	12.6
MAX	12	11	10	8.9	9.2	9.1	20	276	283	186	39	18
MIN	8.0	8.5	8.1	7.8	8.0	7.8	8.8	23	78	18	10	9.4
AC-FT	604	566	571	521	503	500	742	8350	11440	3070	932	749

CAL YR 1975 TOTAL 15563.2 MEAN 42.6 MAX 433 MIN 7.0 AC-FT 30870
WTR YR 1976 TOTAL 14391.9 MEAN 39.3 MAX 283 MIN 7.8 AC-FT 28550

06622900 SOUTH BRUSH CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°20'38", long 106°31'33", in NE¼NW¼ sec.20, T.16 N., R.81 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 300 ft (91 m) upstream from culvert on State Highway 130, 1.6 mi (2.6 km) upstream from North Brush Creek, and 17 mi (27.4 km) southeast of Saratoga.

DRAINAGE AREA.--22.8 mi² (59.1 km²).

PERIOD OF RECORD.--May 1960 to September 1974 (no winter records since 1972), May to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 8,100 ft (2,469 m), from topographic map.

REMARKS.--Records poor. No gage-height record June 19-23, Aug. 3 to Sept. 30. Transbasin diversion 0.3 mi (0.5 km) above station for irrigation in North Brush Creek basin.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--12 years (water years 1961-72), 31.8 ft³/s (0.901 m³/s), 23,040 acre-ft/yr (28.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 559 ft³/s (15.8 m³/s) June 10, 1965, gage height, 4.09 ft (1.247 m); minimum daily, 0.80 ft³/s (0.023 m³/s) Aug. 15-20, 28, 29, 1963.

EXTREMES FOR PERIOD MAY TO SEPTEMBER.--Maximum discharge, 179 ft³/s (5.07 m³/s) June 21, gage height, 3.00 ft (0.914 m); minimum daily, 6.5 ft³/s (0.18 m³/s) Sept. 3-5, 11-15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1								17	69	131	28	7.0
2								19	73	116	30	7.0
3								21	89	92	21	6.5
4								23	103	88	15	6.5
5								28	114	82	13	6.5
6								30	119	76	11	7.0
7								28	101	70	10	11
8								29	106	66	9.5	9.0
9								32	121	61	11	8.0
10								36	125	57	10	7.0
11								40	125	49	10	6.5
12								47	94	47	10	6.5
13								49	69	50	9.0	6.5
14								64	53	45	9.0	6.5
15								80	54	41	8.5	6.5
16								34	62	38	8.5	12
17								34	59	36	8.0	10
18								51	60	35	8.0	9.0
19								59	70	38	8.0	8.0
20								61	90	34	8.0	7.5
21								80	120	37	7.5	7.5
22								89	112	31	7.0	7.0
23								69	100	29	7.5	7.0
24								57	89	27	7.5	7.0
25								58	84	26	7.5	7.0
26								57	89	31	7.0	7.0
27								62	96	34	8.0	7.0
28								74	106	26	7.5	7.0
29								70	108	24	7.5	7.0
30								60	110	23	7.0	7.0
31								60	---	28	7.0	---
TOTAL								1518	2770	1568	326.5	225.0
MEAN								49.0	92.3	50.6	10.5	7.50
MAX								89	125	131	30	12
MIN								17	53	23	7.0	6.5
AC-FT								3010	5490	3110	648	446

06623800 ENCAMPMENT RIVER ABCVE HOG PARK CREEK, NEAR ENCAMPMENT, WY
(Hydrologic bench-mark station)

LOCATION.--Lat 41°01'25", long 106°49'27", in NE¼SW¼ sec.10, T.12 N., R.84 W., Carbon County, Hydrologic Unit 10180002, Medicine Bow National Forest, on left bank 0.6 mi (1.0 km) upstream from Hog Park Creek and 13 mi (21 km) south of Encampment.

DRAINAGE AREA.--72.7 mi² (188.3 km²). Area at mouth, 265 mi² (686 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 8,270 ft (2,521 m), from topographic map.

REMARKS.--Records good except those for November, which are poor. No diversion above station.

AVERAGE DISCHARGE.--12 years, 113 ft³/s (3.200 m³/s), 81,570 acre-ft/yr (101 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,680 ft³/s (47.6 m³/s) about June 13, 1965 (gage height, not determined), from slope-area measurement of peak flow; minimum daily, 9.5 ft³/s (0.27 m³/s) Dec. 31, 1968.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 750 ft³/s (21.2 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 11	1130	ice jam		*4.57	1.393
June 5	2130	*842	23.8	4.27	1.301

Minimum daily discharge, 16 ft³/s (0.45 m³/s) Mar. 6, 7, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	33	26	22	19	18	18	51	530	499	74	30
2	27	31	26	22	19	17	20	65	562	442	85	29
3	27	30	26	22	19	17	19	83	605	378	83	27
4	26	29	26	22	18	17	22	100	670	344	78	26
5	26	29	26	22	19	17	24	118	716	319	63	26
6	25	30	26	22	18	16	22	124	716	295	58	26
7	26	30	26	22	19	16	21	117	716	272	54	40
8	31	30	26	22	19	18	22	122	698	260	54	35
9	29	27	26	22	19	18	23	128	710	242	74	30
10	33	26	26	22	18	18	23	155	722	219	54	28
11	35	26	26	20	17	18	26	182	686	198	54	27
12	32	25	26	23	18	18	29	180	595	190	57	27
13	32	26	26	22	20	18	30	194	499	188	52	27
14	32	29	26	21	18	18	32	258	454	155	52	28
15	32	30	25	22	19	18	29	262	446	140	46	29
16	32	30	25	22	18	18	37	217	446	127	43	27
17	30	30	26	22	18	18	36	258	414	117	40	27
18	35	30	26	22	18	18	34	337	389	115	41	25
19	34	25	25	22	18	17	30	368	384	192	40	26
20	31	20	24	20	18	17	30	386	400	148	38	29
21	30	21	24	20	18	18	27	450	478	138	37	26
22	30	23	24	20	18	18	29	474	548	110	37	28
23	29	25	24	20	18	18	31	422	558	95	36	30
24	27	25	23	21	18	18	32	382	454	87	36	33
25	25	25	23	20	18	18	34	389	410	87	34	34
26	26	25	23	20	18	18	38	378	426	99	35	30
27	27	25	23	20	18	17	38	414	422	156	44	28
28	28	25	23	20	18	18	40	470	446	90	35	26
29	29	25	23	20	17	16	46	508	430	79	33	26
30	29	25	24	20	---	17	51	494	430	77	32	26
31	36	---	23	19	---	17	---	478	---	90	31	---
TOTAL	917	810	772	656	530	543.	893	8572	15940	5948	1530	856
MEAN	29.6	27.0	24.9	21.2	18.3	17.5	29.8	277	531	192	49.4	28.5
MAX	36	33	26	23	20	18	51	508	722	499	85	40
MIN	25	20	23	19	17	16	18	51	364	77	31	25
AC-FT	1820	1610	1530	1300	1050	1080	1770	17000	31620	11800	3030	1700

CAL YR 1975 TOTAL 46667 MEAN 128 MAX 914 MIN 14 AC-FT 92560
WTR YR 1976 TOTAL 37967 MEAN 104 MAX 722 MIN 16 AC-FT 75310

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued
(Hydrologic bench-mark station)

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	IMME-DIATE COLI-FORM (COL. PER 100 ML)	FECAL COLI-FORM (COL. PER 100 ML)	STREP-TOCOCCI (COL-ONIES PER 100 ML)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)
OCT 23...	1000	24	62	7.1	.5	9.8	52	<1	4	29	0	8.5
NOV 20...	1420	A20	58	6.9	.0	--	<1	<1	1	29	0	8.8
JAN 14...	1330	22	65	7.2	.0	10.7	2	<1	<1	35	4	9.1
MAR 08...	1130	18	70	7.4	.5	10.2	<1	<1	<1	33	0	8.8
MAY 14...	1030	212	70	7.4	3.0	8.5	16	<1	<1	19	2	5.3
JUN 11...	1200	650	<50	6.4	5.2	9.5	38	<1	<1	15	1	5.0
JUL 23...	0815	96	<50	6.9	7.0	8.4	19	11	9	19	0	5.5
AUG 20...	0905	38	<50	7.0	9.0	10.3	22	82	<1	28	0	8.7
SEP 17...	1030	26	65	--	6.0	9.0	11	<1	1	28	0	8.3

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)
OCT 23...	1.8	2.3	.2	.9	35	0	29	5.1	1.6	.1	9.3
NOV 20...	1.8	2.4	.2	.8	44	0	36	3.1	.6	.1	11
JAN 14...	2.9	3.3	.2	.9	38	0	31	7.1	.6	.2	11
MAR 08...	2.7	2.4	.2	1.0	40	0	33	4.2	.3	.1	13
MAY 14...	1.5	2.1	.2	.8	21	0	17	8.5	.0	.1	7.2
JUN 11...	.7	1.1	.1	.6	17	0	14	4.7	1.6	.1	6.4
JUL 23...	1.2	1.6	.2	.7	28	0	23	4.3	.6	.1	8.3
AUG 20...	1.6	2.9	.2	.8	34	0	28	3.8	.5	.1	9.7
SEP 17...	1.8	2.3	.2	.8	37	--	30	5.5	1.0	.2	10

DATE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRATE (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)
OCT 23...	47	47	.06	3.05	--	--	--	--	.00	.01	--
NOV 20...	51	50	.07	2.70	--	--	--	--	.01	.01	--
JAN 14...	59	54	.07	3.21	--	--	--	--	.06	.00	--
MAR 08...	47	52	.07	2.53	--	--	--	--	.08	.00	--
MAY 14...	53	36	.05	20.6	--	--	--	--	.03	.01	--
JUN 11...	29	29	.04	50.9	--	--	--	--	--	--	--
JUL 23...	31	36	.05	9.33	--	--	.00	.00	.00	.01	--
AUG 20...	71	45	.06	4.62	--	--	--	--	.00	.00	--
SEP 17...	49	48	.07	3.43	50	0	--	--	.00	.01	5.8

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L)	CYANIDE (CN) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 23...	--	--	--	--	--	--	--	--	6	.39	--
NOV 20...	--	--	--	--	--	--	--	--	8	.43	--
JAN 14...	--	--	--	--	--	--	--	--	12	.71	--
MAR 08...	--	--	--	--	--	--	--	--	6	.29	--
MAY 14...	--	--	--	--	--	--	--	450	--	--	--
JUN 11...	--	--	--	--	--	--	--	--	16	28	43
JUL 23...	--	--	--	--	--	--	--	--	2	.52	50
AUG 20...	--	--	--	--	--	--	--	--	26	2.7	51
SEP 17...	<.4	1.1	<.4	.9	<.4	.06	.00	--	4	.29	64

DATE	TIME	TOTAL ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)
JUN 11...	1200	0	100	<10	0	<10	460
SEP 17...	1030	0	100	<10	0	<10	70

DATE	TOTAL LEAD (PB) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	TOTAL ZINC (ZN) (UG/L)
JUN 11...	<100	20	.0	0	<10	0
SEP 17...	<100	230	.0	1	<10	0

DATE	TIME	TOTAL PCB (UG/L)	PCB IN BOTTOM MA-TERIAL (UG/KG)	POLY-CHLO-RINATED NAPH-THA-LENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA-TERIAL (UG/KG)
SEP 17...	1030	.0	0	.00	.00	.0	.0	0	.00	.0	.00	.0

DATE	TOTAL DDT (UG/L)	DDT IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DI-AZINON (UG/L)	TOTAL DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG)
SEP 17...	.00	.0	.00	.00	.0	.00	.0	.00	.00	.0	.00	.0

DATE	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL MALA-THION (UG/L)	TOTAL METHYL PARA-THION (UG/L)	TOTAL METHYL TRI-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
SEP 17...	.00	.0	.00	.00	.00	.00	0	0	.00	.00	.00	.00

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued
(Hydrologic bench-mark station)

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	MAY 14,76
TIME	1100
TOTAL CELLS/ML	450
DIVERSITY: DIVISION	1.2
.CLASS	1.2
..ORDER	1.2
...FAMILY	2.2
....GENUS	2.4

ORGANISM	CELLS /ML	PER-CENT
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	120#	28
...CYMBELLACEAE		
....CYMBELLA	19	5
...DIATOMACEAE		
....DIATOMA	9	3
...FRAGILARIACEAE		
....FRAGILARIA	37	9
....HANNAEA	*	0
....SYNEDRA	28	7
...GOMPHONEMATACEAE		
....GOMPHONEMA	9	3
...NAVICULACEAE		
....NAVICULA	19	5
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	190#	42
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....TRACHELOMONAS	19	5

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

PERIPHYTON
MAR. 9, 1976
1130 HOURS

IDENTIFICATION OF PERIPHYTON

_ORGANISM__NAME_____________	_COMMON__NAME______
CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..CENTRALES	CENTRIC
...COSCINODISCACEAE	
....CYCLOTELLA	
..PENNALES	PENNATE
...ACHNANTHACEAE	
& ....ACHNANTHES	
....COCCONEIS	
...CYMBELLACEAE	
....CYMBELLA	
....EPITHEMIA	
....RHOPALODIA	
...DIATOMACEAE	
....DIATOMA	
...FRAGILARIACEAE	
....FRAGILARIA	
....HANNAEA	
....SYNEDRA	
...GOMPHONEMATACEAE	
....GOMPHONEMA	
...NAVICULACEAE	NAVICULOID
....FRUSTULIA	
....NAVICULA	
....PINNULARIA	
...NITZSCHIACEAE	
....NITZSCHIA	
CYANOPHYTA	BLUE-GREEN ALGAE
.MYXOPHYCEAE	
..OSCILLATORIALES	FILAMENTOUS
...OSCILLATORIACEAE	
....LYNGBYA	
...SCYTONEMATACEAE	
& ....PLECTONEMA	

NOTE: & - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued
(Hydrologic bench-mark station)

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PERIPHYTON

MAY 14, 1976
1100 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME_	_COMMON__NAME_
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..ULOTRICHALES	
	...ULOTRICHACEAE	
O	....ULOTHRIX	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....MELOSIRA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
E	....ACHNANTHES	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....CYMBELLA	
O	....EPITHEMIA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
O	....HANNAEA	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...MERIDIONACEAE	
O	....MERIDION	
	...NAVICULACEAE	NAVICULOID
O	....NAVICULA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE
	..CHRYSOCAPSALES	
	...HYDRURACEAE	
O	....HYDRURUS	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHROOCOCCACEAE	
O	....ANACYSTIS	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
E	....NOSTOC	
	...OSCILLATORIACEAE	
O	....LYNGBYA	
O	....OSCILLATORIA	
	...RIVULARIACEAE	
O	....AMPHITHRIX	
	RHODOPHYTA	RED ALGAE
	.RHODOPHYCEAE	
	..NEMALIONALES	
	...CHANTRANSIACEAE	
O	....AUDOUINELLA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06623800 ENCAMPMENT RIVER ABOVE HOG PARK CREEK, NEAR ENCAMPMENT, WY--Continued
(Hydrologic bench-mark station)

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

BENTHIC INVERTEBRATE

DATE	MAR 8,76
TIME	1130
TOTAL COUNT	194
DIVERSITY: PHYLUM	0.0
.CLASS	0.0
..ORDER	1.4
...FAMILY	3.0
....GENUS	0.0
....GENUS-INSECTA	0.0

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.ARACHNOIDEA	
..HYDRACARINA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS	1
.INSECTA	
..COLEOPTERA	
...ELMIDAE	
....HETERLIMNIUS	3
....ZAITZEVIA	3
..DIPTERA	
...BLEPHAROCERIDAE	
....AGATHON	1
...CHIRONOMIDAE	
....CARDIOCLADIUS	1
....UNKNOWN GENUS	2
...TIPULIDAE	
....DICRANOTA	2
....HEXATOMA	1
..EPHEMEROPTERA	
...BAETIDAE	
....BAETIS	26
...EPHEMERELLIDAE	
....EPHEMERELLA	3
...HEPTAGENIIDAE	
....CINYGMULA	11
....RHITHROGENA	48
...LEPTOPHLEBIIDAE	
....PARALEPTOPHLEBIA	2
..PLECOPTERA	
...CAPNIIDAE	
....CAPNIA	3
....PARACAPNIA	4
...CHLOROPERLIDAE	
....ALLOPERLA	6
...NEMOURIDAE	
....NEMOURA	7
...PERLIDAE	
....CLAASSENIA	1
...PERLODIDAE	
....ISOGENUS	1
..TRICHOPTERA	
...BRACHYCENTRIDAE	
....BRACHYCENTRUS	5
...HYDROPSYCHIDAE	
....ARCTOPSYCHE	3
...LEPIDOSTOMATIDAE	
....LEPIDOSTOMA	1
...LIMNEPHILIDAE	
....OLIGOPHLEBODES	3
...RHYACOPHILIDAE	
....RHYACOPHILA	2
...UNKNOWN 118020305001000	4
..EPHEMEROPTERA	
...EPHEMERELLIDAE	
....EPHEMERELLA	
.....E. DODDSI	49
.....E.PROSERPINA	1

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY

LOCATION.--Lat 41°18'12", long 106°42'53", in NE¼NW¼ sec.3, T.15 N., R.83 W., Carbon County, Hydrologic Unit 10180002, on left bank 0.5 mi (0.8 km) upstream from mouth and 8.0 mi (12.9 km) northeast of Encampment.

DRAINAGE AREA.--265 mi² (686 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1940 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,970 ft (2,124 m), from topographic map. Prior to June 28, 1961, water-stage recorder at site 660 ft (201 m) upstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Records good except those for October to April, which are poor. Five small reservoirs above station for irrigation, total capacity, about 400 acre-ft (0.493 hm³). Slight regulation by Hog Park Creek Reservoir, capacity, about 2,970 acre-ft (3.66 hm³). Diversions for irrigation of about 8,800 acres (35.6 km²) above station. Transbasin diversion above station into Hog Park Creek (tributary to Encampment River) from North Fork Little Snake River for municipal, industrial, and irrigation uses began September 1964.

AVERAGE DISCHARGE.--36 years, 240 ft³/s (6.80 m³/s), 173,900 acre-ft/yr (214 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,510 ft³/s (128 m³/s) June 1, 1943, gage height, 8.25 ft (2.515 m), site and datum then in use; maximum gage height, 8.33 ft (2.539 m) June 4, 1952, site and datum then in use; minimum daily discharge, 5.2 ft³/s (0.15 m³/s) Aug. 15, 16, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,650 ft³/s (46.7 m³/s) June 6, 10, gage height, 5.06 ft (1.542 m), no peak above base of 1,700 ft³/s (48.1 m³/s); minimum daily, 39 ft³/s (1.10 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	50	82	75	67	57	52	59	167	1130	994	113	57
2	50	68	76	66	56	52	63	210	1230	874	146	55
3	50	76	77	66	56	52	61	266	1250	730	146	46
4	49	87	78	66	54	52	64	326	1380	622	133	44
5	48	82	78	66	55	52	67	372	1440	560	125	42
6	46	84	78	66	54	50	70	420	1510	500	109	44
7	47	84	78	66	55	49	72	420	1450	428	100	51
8	50	89	78	66	55	49	85	424	1450	388	95	63
9	51	76	78	66	54	50	100	452	1460	356	111	63
10	56	53	78	65	53	51	115	490	1480	329	100	57
11	59	66	76	64	53	52	125	580	1410	298	87	55
12	56	70	76	62	54	52	115	590	1200	273	89	53
13	55	75	78	62	55	53	110	575	994	259	87	55
14	55	76	78	63	54	54	105	718	994	221	87	57
15	55	76	82	64	54	55	115	898	874	203	80	57
16	54	76	83	65	53	55	120	712	892	191	68	57
17	55	78	83	65	53	59	120	730	844	191	68	55
18	57	68	82	65	53	72	113	820	832	185	68	51
19	55	66	78	65	53	70	113	931	736	245	66	53
20	54	64	74	64	53	72	140	917	736	224	63	55
21	53	67	73	64	53	72	123	1080	796	217	63	55
22	52	69	72	62	54	74	109	1160	910	191	63	55
23	64	70	72	61	54	61	[illegible]	[illegible]	1090	165	63	57
24	53	70	70	61	54	59	[illegible]	[illegible]	880	128	66	61
25	51	72	70	60	54	61	123	[illegible]	766	113	63	70
26	70	72	69	60	55	57	143	[illegible]	766	156	61	72
27	72	72	69	60	56	53	140	[illegible]	742	185	63	63
28	57	72	68	60	54	55	138	1140	766	138	64	48
29	57	72	68	59	53	46	162	1220	754	113	61	50
30	59	73	70	58	---	53	176	1160	694	104	57	39
31	104	---	70	57	---	55	---	1070	---	116	57	---
TOTAL	1744	2205	2335	1961	1571	1749	3282	23218	31456	9697	2622	1640
MEAN	56.3	73.5	75.3	63.3	54.2	56.4	109	749	1049	313	84.6	54.7
MAX	104	89	83	67	57	74	176	1220	1510	994	146	72
MIN	46	53	68	57	53	46	59	167	694	104	57	39
AC-FT	3460	4370	4630	3890	3120	3470	6510	46050	62390	19230	5200	3250

CAL YR 1975 TOTAL 108136 MEAN 296 MAX 2220 MIN 44 AC-FT 214500
WTR YR 1976 TOTAL 83480 MEAN 228 MAX 1510 MIN 39 AC-FT 165600

PLATTE RIVER BASIN

06625000 ENCAMPMENT RIVER AT MOUTH, NEAR ENCAMPMENT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 19...	1015	A55	5.5	1	9.9	B300	81	0
NOV 16...	1030	66	3.0	1	10.2	88	85	3
DEC 16...	0930	A83	1.0	1	9.8	86	94	12
JAN 18...	0930	A65	1.0	1	11.6	21	110	20
FEB 15...	0930	A54	1.0	2	10.8	78	110	20
MAR 18...	0930	57	2.5	4	10.8	B13	94	12
APR 20...	1015	136	1.5	2	11.0	86	53	3
MAY 23...	1030	1160	4.5	3	13.7	--	18	1
JUN 21...	1000	850	10.5	1	8.4	B34	31	1
JUL 19...	1115	316	16.5	1	8.0	B310	56	3
AUG 16...	1100	74	13.5	1	9.1	24	110	12
SEP 14...	0915	57	11.0	1	8.7	B130	120	5

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 19...	25	4.5	13	.6	1.6	99	0	81	22
NOV 16...	28	3.9	13	.6	1.9	100	0	82	21
DEC 16...	31	4.3	13	.6	1.6	100	0	82	31
JAN 18...	35	5.1	15	.6	1.9	110	0	90	39
FEB 15...	34	5.0	15	.6	3.3	110	0	90	35
MAR 18...	30	4.4	14	.6	2.1	100	0	82	29
APR 20...	17	2.6	8.2	.5	1.4	61	0	50	13
MAY 23...	5.3	1.1	2.3	.2	.5	21	0	17	2.5
JUN 21...	9.8	1.6	2.3	.2	1.2	37	0	30	5.8
JUL 19...	17	3.1	5.9	.3	1.4	65	0	53	15
AUG 16...	35	5.0	15	.6	2.1	120	0	98	30
SEP 14...	38	5.7	19	.8	2.3	140	0	115	34

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT 19...	5.4	.3	20	141	.19	20.9	.02	.01
NOV 16...	5.3	.3	19	143	.19	25.5	.00	.01
DEC 16...	5.7	.3	20	157	.21	35.2	.05	.01
JAN 18...	8.0	.3	22	181	.25	31.8	.09	.01
FEB 15...	8.7	.3	21	179	.24	26.1	.05	.02
MAR 18...	5.2	.2	18	153	.21	23.5	.05	.04
APR 20...	4.7	.2	13	90	.12	33.0	.07	.01
MAY 23...	1.9	.1	7.8	32	.04	100	.05	.02
JUN 21...	1.9	.2	9.3	50	.07	115	.05	.02
JUL 19...	.0	.3	13	88	.12	75.1	.02	.02
AUG 16...	5.9	.5	21	175	.24	35.0	.16	.01
SEP 14...	6.6	.5	22	200	.27	30.8	.23	.01

06628800 SAGE CREEK NEAR SARATOGA, WY

LOCATION.--Lat 41°34'53", long 106°59'17", in SE¼NE¼NW¼ sec.32, T.19 N., R.85 W., Carbon County, Hydrologic Unit 10180002, on right bank 300 ft (91 m) upstream from private farm bridge, 1.1 mi (1.8 km) downstream from Little Sage Creek, 3.6 mi (5.8 km) upstream from mouth, and 13 mi (21 km) northwest of Saratoga.

DRAINAGE AREA.--263 mi² (681 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1973 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 6,650 ft (2,027 m), from topographic map.

REMARKS.--Records poor. Several small reservoirs above station, total capacity, about 3,000 acre-ft (3.70 hm³). Diversions for irrigation of about 1,560 acres (6.31 km²) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 406 ft³/s (11.5 m³/s) July 29, 1974, gage height, 9.77 ft (2.978 m); minimum daily during periods of operation, 0.08 ft³/s (0.002 m³/s) Sept. 13, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 5, 1972, reached a discharge of 1,800 ft³/s (51.0 m³/s), gage height, 11.71 ft (3.569 m) from floodmarks, by slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 242 ft³/s (6.85 m³/s) July 25, gage height, 7.65 ft (2.332 m); minimum daily during period of operation, 0.08 ft³/s (0.002 m³/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.41						45	38	51	11	29	1.3
2	.48						74	43	49	40	35	.62
3	.48						57	51	46	52	6.4	.46
4	.48						61	55	44	15	5.1	4.8
5	.48						68	65	42	10	4.5	4.1
6	.48						77	74	40	8.8	4.0	4.5
7	.55						43	67	39	7.8	3.5	2.6
8	.76						38	63	38	7.2	3.0	2.4
9	.76						43	60	35	6.4	2.1	1.6
10	.76						46	69	31	6.1	1.4	1.3
11	.76						51	75	28	5.7	1.3	.55
12	.76						55	81	29	5.8	1.3	.41
13	.76						66	74	31	5.5	1.3	.08
14	.90						57	65	44	5.5	1.2	.11
15	.90						49	67	64	5.1	.76	.14
16	.76						44	71	81	5.4	.99	.27
17	.33						27	58	61	5.4	1.2	.27
18	.34						18	57	57	5.4	1.2	.27
19	.41						17	59	59	4.5	1.1	.34
20	.41						19	61	36	8.8	1.1	.34
21	.41						25	62	25	5.8	1.1	.34
22	.41						25	64	22	5.5	1.0	.34
23	.39						39	73	28	5.2	1.1	.34
24	.38						47	75	33	5.0	1.3	.34
25	.50						39	62	23	32	1.3	.41
26	.70						44	62	19	6.5	1.1	.41
27	1.0						42	61	16	5.2	1.0	.41
28	1.5						38	57	15	5.7	.62	.41
29	2.1						33	55	14	5.5	2.4	.48
30	2.9						37	53	11	5.2	5.1	.48
31	3.4						---	54	---	26	2.0	---
TOTAL	25.66						1324	1931	1111	329.0	123.47	30.42
MEAN	.83						44.1	62.3	37.0	10.6	3.98	1.01
MAX	3.4						77	81	81	52	35	4.8
MIN	.33						17	38	11	4.5	.62	.08
AC-FT	51						2630	3830	2200	653	245	60

06628800 SAGE CREEK NEAR SARATOGA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1973 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
OCT								
22...	1230	A.41	8.0	2300	2100	410	310	460
NOV								
19...	0915	1.2	.5	580	350	140	59	130
MAR								
23...	1030	33	.5	400	290	95	40	82
APR								
14...	1330	68	8.0	340	210	84	31	59
MAY								
12...	0930	80	8.5	270	130	69	24	39
JUN								
10...	1120	33	15.5	330	170	80	31	41
JUL								
21...	1200	5.5	17.0	530	360	110	60	99
AUG								
17...	1710	1.2	15.5	760	590	150	94	160
SEP								
15...	1350	.27	14.0	1900	1700	260	300	450

A Daily mean discharge.

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
OCT									
22...	4.2	18	250	0	205	2900	89	1.2	2.1
NOV									
19...	2.3	5.6	280	0	230	600	16	.7	19
MAR									
23...	1.8	5.4	140	0	115	440	15	.4	7.8
APR									
14...	1.4	3.7	160	0	131	330	9.0	.5	8.0
MAY									
12...	1.0	4.7	170	0	139	210	8.3	.3	15
JUN									
10...	1.0	3.7	190	0	156	250	7.4	.4	20
JUL									
21...	1.9	4.9	210	0	172	550	16	.7	13
AUG									
17 ..	2.5	6.3	210	0	172	880	28	.8	11
SEP									
15...	4.5	14	260	0	213	2500	82	1.2	.0

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT								
22...	4370	5.94	4.84	2.2	.02	18	.02	--
NOV								
19...	1110	1.51	3.60	.20	.03	46	.15	--
MAR								
23...	756	1.03	67.4	.34	.02	366	33	--
APR								
14...	602	.82	111	.16	.33	1490	274	86
MAY								
12...	458	.62	98.9	.07	.42	921	199	84
JUN								
10...	528	.72	47.0	.09	.18	232	21	95
JUL								
21...	961	1.31	14.3	.20	.16	232	3.4	99
AUG								
17...	1440	1.96	4.67	.70	.06	185	.60	85
SEP								
15...	3730	5.07	2.72	1.4	.04	38	.03	90

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
APR							
14...	1330	68	8.0	14	24	35	49

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
APR						
14...	60	63	71	78	88	100

06628900 PASS CREEK NEAR ELK MOUNTAIN, WY

LOCATION.--Lat 41°35'10", long 106°36'37", in SW¼SW¼ sec.27, T.19 N., R.82 W., Carbon County, Hydrologic Unit 10180002, on right bank 235 ft (72 m) downstream from Lone Tree Creek, 1,000 ft (305 m) upstream from Brush Creek, 12 mi (19 km) southwest of Elk Mountain, and 14 mi (23 km) northeast of Saratoga.

DRAINAGE AREA.--91.5 mi² (237.0 km²). Area at mouth, 279 mi² (723 km²).

PERIOD OF RECORD.--April 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,230 ft (2,204 m), from topographic map. Prior to Oct. 6, 1966, 15 ft (5 m) downstream at present datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 6,300 acres (25.5 km²) above station. Diversion to Kerr ditch 7.5 mi (12.1 km) upstream.

AVERAGE DISCHARGE.--19 years, 40.5 ft³/s (1.147 m³/s), 29,340 acre-ft/yr (36.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft³/s (33.4 m³/s) May 9, 1973, gage height, 6.27 ft (1.911 m); minimum daily, 1.5 ft³/s (0.042 m³/s) Sept. 11, 12, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 300 ft³/s (8.50 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
June 15	2300	*700	19.8	4.70	1.433

Minimum daily discharge, 6.0 ft³/s (0.17 m³/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.9	8.7	9.2	8.5	8.9	13	13	75	130	56	26	8.2
2	7.9	8.6	9.8	8.4	9.0	13	14	99	130	71	73	7.9
3	7.9	8.7	10	8.4	9.0	12	15	104	140	80	48	7.2
4	7.6	8.8	11	8.5	8.9	12	18	120	130	56	34	6.6
5	6.9	8.9	11	8.5	8.4	11	21	138	125	47	31	6.3
6	6.9	8.7	11	8.6	8.0	11	28	125	115	42	26	6.0
7	7.2	8.5	11	8.6	8.2	11	35	100	100	36	23	8.2
8	7.9	8.4	10	8.7	8.3	11	40	99	93	34	21	10
9	9.1	8.3	10	8.7	8.4	12	34	110	86	28	23	9.1
10	10	8.2	10	8.8	8.4	12	44	124	80	25	20	8.6
11	9.5	8.2	10	8.8	8.5	12	56	145	74	25	20	7.6
12	9.1	8.2	10	8.9	8.6	12	67	143	67	23	21	6.9
13	11	8.3	9.5	8.9	8.6	12	76	120	72	20	20	7.2
14	11	8.5	9.5	9.0	8.7	13	80	140	93	17	20	7.6
15	11	8.8	9.5	9.0	8.8	10	81	155	257	14	19	7.6
16	11	9.0	9.5	9.0	8.8	11	70	105	325	14	17	7.2
17	10	9.2	9.5	9.0	8.8	11	55	110	244	15	18	7.6
18	9.5	9.1	9.3	9.0	8.8	12	45	155	269	13	18	7.2
19	9.1	8.9	9.2	8.9	8.8	13	40	170	205	21	20	7.2
20	9.1	8.8	9.1	8.7	8.8	13	35	180	156	23	17	8.2
21	8.6	8.7	8.9	8.8	8.6	14	36	210	118	26	17	7.6
22	8.2	8.8	8.8	8.9	8.7	14	45	200	110	26	16	7.2
23	7.8	8.6	8.7	9.0	8.9	15	74	150	134	29	16	7.2
24	7.6	8.8	8.6	8.9	9.5	15	67	130	105	28	17	7.9
25	7.7	8.5	8.6	8.7	11	14	74	140	74	29	16	9.1
26	8.0	8.5	8.7	8.6	13	14	83	140	62	31	15	8.6
27	8.2	8.6	8.8	8.8	13	13	65	155	55	32	17	8.6
28	8.2	8.8	8.9	8.9	13	12	60	170	50	27	16	8.6
29	8.3	9.0	8.9	9.0	13	12	77	205	44	24	13	7.9
30	8.6	8.9	8.8	9.0	---	12	80	120	43	24	9.1	7.6
31	8.8	---	8.7	8.8	---	12	---	115	---	24	8.2	---
TOTAL	269.6	260.0	294.5	272.3	271.4	384	1528	4252	3686	960	675.3	232.7
MEAN	8.70	8.67	9.50	8.78	9.36	12.4	50.9	137	123	31.0	21.8	7.76
MAX	11	9.2	11	9.0	13	15	83	210	325	80	73	10
MIN	6.9	8.2	8.6	8.4	8.0	10	13	75	43	13	8.2	6.0
AC-FT	535	516	584	540	538	762	3030	8430	7310	1900	1340	462

CAL YR 1975 TOTAL 12694.1 MEAN 34.8 MAX 270 MIN 6.9 AC-FT 25180
WTR YR 1976 TOTAL 13085.8 MEAN 35.8 MAX 325 MIN 6.0 AC-FT 25960

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY

LOCATION.--Lat 41°52'20", long 107°03'25", in SW¼SW¼ sec.13, T.22 N., R.86 W., Carbon County, Hydrologic Unit 10180002, on left bank 6.5 mi (10.5 km) northeast of Sinclair and 14 mi (22.5 km) upstream from high-water line of Seminoe Reservoir at elevation 6,357 ft (1,938 m).

DRAINAGE AREA (REVISED).--4,175 mi² (10,813 km²), of which 114 mi² (295 km²) is probably noncontributing. The 3,959 mi² (10,254 km²) in Great Divide Basin is not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1939 to current year. Prior to October 1943, published as "near Parco."

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,400.75 ft (1,950.949 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 215,000 acres (870 km²) above station. Transbasin diversions above station.

COOPERATION.--Eight discharge measurements furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--37 years, 1,109 ft³/s (31.41 m³/s), 803,300 acre-ft/yr (991 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,500 ft³/s (411 m³/s) June 15, 1957, gage height, 9.72 ft (2.963 m); minimum daily, 70 ft³/s (1.98 m³/s) Sept. 17, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,510 ft³/s (128 m³/s) May 24, gage height, 5.44 ft (1.658 m); minimum daily, 204 ft³/s (5.78 m³/s) Sept. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	259	617	240	225	360	415	494	1110	3060	2260	762	301
2	266	653	245	225	365	395	582	1110	3100	2730	875	287
3	252	590	250	230	365	370	770	1230	3160	2730	824	280
4	252	566	250	230	360	355	815	1340	3420	2440	1120	259
5	238	542	255	235	345	350	982	1500	3710	2120	993	245
6	252	518	260	240	335	350	1190	1690	3810	1880	900	238
7	252	510	260	245	335	355	1260	1820	3860	1660	770	217
8	252	494	265	250	340	355	1280	1780	3860	1440	671	204
9	245	510	270	255	345	360	1240	1900	3830	1310	599	231
10	266	502	270	260	355	370	1300	1930	3960	1170	582	238
11	280	390	270	270	365	375	1490	1980	3910	1080	599	245
12	294	300	265	285	370	375	1520	2120	3790	1020	626	231
13	287	370	265	295	375	375	1560	2170	3640	960	574	217
14	301	410	260	310	380	380	1640	2260	3450	920	558	217
15	301	440	255	325	380	380	1580	2410	3710	797	550	224
16	322	470	245	340	380	385	1540	2520	3910	752	494	238
17	358	480	245	345	380	390	1440	2280	3610	689	462	245
18	406	470	240	345	375	390	1310	2310	3300	662	430	266
19	398	420	240	340	370	390	1150	2420	3730	680	398	273
20	390	360	235	340	365	390	1020	2650	3280	920	382	280
21	382	320	235	335	360	390	950	2870	2970	1280	382	294
22	374	295	235	335	365	390	930	3400	2790	1190	374	294
23	398	280	230	335	380	395	940	4050	2970	1080	358	287
24	430	265	230	330	395	405	1080	4440	3250	890	343	280
25	414	250	230	330	405	410	1040	4100	3150	788	329	287
26	366	240	230	330	415	410	1070	3840	2680	923	322	294
27	374	235	230	330	415	420	1150	3620	2360	870	315	329
28	566	235	230	335	415	440	1080	3420	2180	890	315	343
29	566	240	230	340	415	460	1000	3350	2150	833	336	322
30	542	240	230	345	---	470	1030	3300	2060	734	336	301
31	518	---	230	350	---	454	---	3160	---	662	322	---
TOTAL	10793	12212	7625	9285	10810	12149	34433	78080	98660	38360	16901	7967
MEAN	348	407	246	300	373	392	1148	2519	3289	1237	545	266
MAX	566	653	270	350	415	470	1640	4440	3960	2730	1120	343
MIN	238	235	230	225	335	350	494	1110	2060	662	315	204
AC-FT	21410	24220	15120	18420	21440	24100	68300	154900	195700	76090	33520	15800

CAL YR 1975 TOTAL 457342 MEAN 1253 MAX 6950 MIN 230 AC-FT 907100
WTR YR 1976 TOTAL 337275 MEAN 922 MAX 4440 MIN 204 AC-FT 669000

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT 08...	1400	390	7.5	8	9.8	32	230	82
NOV 13...	1415	A370	2.5	7	11.0	<1	240	92
DEC 11...	1430	A270	1.5	6	11.6	1	210	87
JAN 18...	1100	A345	.5	1	11.8	B2	200	69
FEB 12...	1430	A370	.5	5	11.6	--	200	77
MAR 18...	1110	A390	1.5	7	11.4	B8	200	88
APR 20...	1215	1000	6.5	15	9.6	<1	150	43
MAY 23...	1200	4020	9.0	45	13.0	110	78	19
JUN 21...	1130	2840	17.0	6	8.0	B12	150	35
JUL 19...	1245	680	20.0	1	9.5	B10	160	29
AUG 16...	1230	510	12.5	2	9.1	B9	150	19
SEP 14...	1100	231	14.0	2	8.6	B8	160	45

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT 08...	61	19	37	1.1	2.8	180	0	148	140
NOV 13...	67	19	35	1.0	2.8	180	0	148	130
DEC 11...	59	15	27	.8	3.0	150	0	123	110
JAN 18...	55	15	27	.8	2.8	160	0	131	110
FEB 12...	54	16	35	1.1	3.5	150	0	123	130
MAR 18...	53	17	37	1.1	3.0	130	3	112	140
APR 20...	40	11	24	.9	3.5	130	0	107	84
MAY 23...	22	5.6	11	.5	2.1	72	0	59	38
JUN 21...	41	12	23	.8	2.1	140	0	115	73
JUL 19...	42	15	27	.9	2.1	160	0	131	81
AUG 16...	42	11	25	.9	2.8	160	0	131	71
SEP 14...	43	14	30	1.0	2.8	140	0	115	95

06630000 NORTH PLATTE RIVER ABOVE SEMINOE RESERVOIR, NEAR SINCLAIR, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT 08...	14	.6	15	379	.52	399	.02	.02
NOV 13...	14	.5	19	381	.52	381	.00	.03
DEC 11...	12	.5	16	320	.44	233	.02	.02
JAN 18...	9.4	.5	19	315	.43	293	.02	.01
FEB 12...	18	.5	16	352	.48	352	.02	.02
MAR 18...	18	.4	14	349	.47	368	.00	.06
APR 20...	6.9	.4	12	247	.34	667	.07	.06
MAY 23...	5.4	.3	11	131	.18	1420	.11	.16
JUN 21...	5.6	.5	14	240	.33	1840	.05	.04
JUL 19...	5.6	.6	.3	251	.34	461	.00	.02
AUG 16...	8.5	.6	11	251	.34	346	.41	.04
SEP 14...	13	.6	10	276	.38	172	.07	.02

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	TOTAL PCB (UG/L)	PCB IN BOTTOM MA-TERIAL (UG/KG)	POLY-CHLO-RINATED NAPH-THA-LENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDD (UG/L)
SEP 20...	1430	280	.0	0	.00	.00	.0	.0	0	.00

DATE	DDD IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DI-AZINON (UG/L)	TOTAL DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)
SEP 20...	.2	.00	.2	.00	.0	.00	.00	.0	.00

DATE	ENDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL MALA-THION (UG/L)
SEP 20...	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	TOTAL METHYL PARA-THION (UG/L)	TOTAL METHYL TRI-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
SEP 20...	.00	.00	.00	0	0	.00	.00	.00	.00

06630300 BIG DITCH NEAR COYOTE SPRINGS, WY

LOCATION.--Lat 41°56'07", long 106°48'01", in SE¼SE¼NW¼ sec.23, T.23 N., R.83 W., Carbon County, Hydrologic Unit 10180003, on right bank 140 ft (43 m) downstream from Medicine Bow Mine Company road, 1.2 mi (1.9 km) upstream from high-water line of Seminoe Reservoir at elevation 6,358 ft (1,938 m), 11 mi (18 km) north of Coyote Springs, and 14 mi (23 km) west of Hanna.

DRAINAGE AREA.--110 mi^2 (285 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,380 ft (1,945 m), from topographic map.

REMARKS.--Records poor. Strip mining operation 2 mi (3 km) upstream pumps water into a stilling pond which empties into Big Ditch. This pumping occurs at irregular intervals, depending on dewatering needs of the mine.

EXTREMES FOR CURRENT PERIOD.--February to September 1975: Maximum discharge during period, 396 ft^3/s (11.2 m^3/s) July 16, gage height, 7.37 ft (2.246 m), on basis of flow-through-culverts measurement of peak flow; no flow for many days.

Water year 1976: Maximum discharge, 335 ft^3/s (9.49 m^3/s) Aug. 1, gage height, 6.86 ft (2.091 m), from rating curve extended above 1.7 ft^3/s (0.048 m^3/s) on basis of flow-through-culverts measurement at gage height 7.37 ft (2.246 m) and step-backwater analysis; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	0	0		0	0	
2						0	0	0		0	0	
3						0	0	.01		0	0	
4						0	0	0		0	.62	
5						0	0	0		0	0	
6						0	0	.05		3.6	0	
7						0	.30	.55		.33	0	
8						0	.15	.19		0	0	
9						0	.10	.43		0	0	
10						0	.10	0		0	0	
11						0	.05	.43		0	0	
12						0	0	.10		0	0	
13						0	0	.13		0	0	
14						0	0	0		0	0	
15						0	.02	.10		.14	1.9	
16						0	.20	.23		76	0	
17						0	.10	0		.61	0	
18						0	0	0		0	0	
19						0	0	.07		0	0	
20						0	0	0		0	0	
21						0	0	.30		0	0	
22						0	0	.12		.05	0	
23						0	0	0		.10	0	
24						0	0	.46		0	0	
25						.10	0	.12		0	0	
26						0	0	.30		0	0	
27						0	0	0		0	0	
28						0	0	.17		0	0	
29					---	0	0	.08		0	0	
30					---	0	0	0		0	0	
31					---	0	---	0	---	0	0	---
TOTAL					0	.10	1.02	3.84	0	80.23	2.52	0
MEAN					0	.003	.034	.12	0	2.59	.081	0
MAX					0	.10	.30	.55	0	76	1.9	0
MIN					0	0	0	0	0	0	0	0
AC-FT					0	.2	2.0	7.6	0	159	5.0	0

06630300 BIG DITCH NEAR COYOTE SPRINGS, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	1.9	0			0	29	0
2					0	.50	0			0	1.1	0
3					0	.13	0			0	.35	0
4					0	0	0			0	19	0
5					0	0	0			0	4.9	0
6					0	0	0			0	2.7	0
7					0	0	0			0	1.8	0
8					0	0	.62			0	.20	0
9					.48	0	.38			0	0	0
10					.13	0	.24			0	0	0
11					.04	0	.21			0	0	0
12					0	0	.18			0	0	.18
13					0	0	.21			0	0	.05
14					0	0	.24			0	0	0
15					.05	0	.34			0	0	.23
16					0	0	.34			0	0	.02
17					0	0	.38			0	0	0
18					0	0	.34			0	0	0
19					0	.55	.14			0	0	0
20					0	.25	0			0	0	0
21					0	.25	0			.04	0	0
22					0	.15	0			0	0	0
23					0	.35	0			0	0	0
24					0	.60	0			0	0	0
25					0	.68	0			0	0	0
26					.02	0	0			4.3	0	0
27					.70	.61	0			.90	0	0
28					1.2	.50	0			.01	0	0
29					1.4	0	0			0	0	0
30					---	0	0			.19	0	0
31		---			---	0	---		---	.04	0	---
TOTAL	0	0	0	0	4.02	6.47	3.62	0	0	5.48	59.05	.48
MEAN	0	0	0	0	.14	.21	.12	0	0	.18	1.90	.016
MAX	0	0	0	0	1.4	1.9	.62	0	0	4.3	29	.23
MIN	0	0	0	0	0	0	0	0	0	0	0	0
AC-FT	0	0	0	0	8.0	13	7.2	0	0	11	117	1.0

WTR YR 1976 TOTAL 79.12 MEAN .22 MAX 29 MIN 0 AC-FT 157

PLATTE RIVER BASIN

06630300 BIG DITCH NEAR COYOTE SPRINGS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--March and April 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
MAR 25...	1000	.74	3050	8.5	2.0	900	10.5	10	750	340	120
APR 12...	1830	.18	5000	8.6	10.0	350	8.9	8.4	1700	1200	200

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
MAR 25...	110	310	4.9	8.8	488	8	414	1200	31	.3	6.9
APR 12...	280	720	7.7	18	488	22	437	2500	71	.3	3.3

DATE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
MAR 25...	2040	2.77	4.08	2500	2600	.27	1.1	5.9	7.0	7.3	.20
APR 12...	4060	5.52	1.97	--	--	.25	.34	4.0	4.3	4.6	.99

DATE	DISSOLVED URANIUM (DIRECT FLUOROMETRIC) (PC/L)	DISSOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUSPENDED GROSS ALPHA AS U-NAT. (UG/L)	DISSOLVED GROSS BETA AS CS-137 (PC/L)	SUSPENDED GROSS BETA AS CS-137 (PC/L)	DISSOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUSPENDED GROSS BETA AS SR90 /Y90 (PC/L)	DISSOLVED RA-226 (RADON METHOD) (PC/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
MAR 25...	7.6	<37	330	18	130	14	110	.20	2170	4.3	--
APR 12...	--	--	--	--	--	--	--	--	643	.31	100

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
MAR 25...	1000	37000	--	51	--	10	--	60	<10	--	50
APR 12...	1830	--	10	--	2	--	0	230	--	1	--

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
MAR 25...	--	70	--	49000	40	100	--	70	--	1200	--
APR 12...	10	--	4	--	60	--	2	--	60	--	10

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
MAR 25...	.0	--	4	--	160	--	1	--	--	240	--
APR 12...	--	.0	--	3	--	7	--	1	4.2	--	10

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
MAR 25...	1000	2.0	.74	3	5	15	69	88	96	100

06630330 NORTH DITCH NEAR COYOTE SPRINGS, WY

LOCATION.--Lat 41°56'44", long 106°48'06", in NE¼SE¼SW¼ sec.19, T.23 N., R.83 W., Carbon County, Hydrologic Unit 10180003, on right bank 0.8 mi (1.3 km) upstream from high-water line of Seminoe Reservoir at elevation 6,358 ft (1,938 m) and 11 mi (18 km) north of Coyote Springs.

DRAINAGE AREA.--22.6 mi^2 (58.5 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July to September 1976.

GAGE.--Water-stage recorder. Altitude of gage is 6,380 ft (1,945 m), from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD JULY TO SEPTEMBER 1976.--Maximum discharge, 27 ft^3/s (0.76 m^3/s) Aug. 1, gage height, 1.98 ft (0.604 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1											2.8	0
2											3.6	0
3											2.0	0
4											4.3	0
5											3.1	0
6											.24	0
7											.19	0
8											.15	0
9											.11	0
10											.11	0
11											.11	0
12											.15	0
13											.11	0
14											.11	0
15											.15	.01
16											.15	0
17											.15	0
18											.15	0
19											.08	0
20											.05	0
21											.05	0
22											.05	0
23											.05	0
24											.05	.05
25											.05	.02
26											.05	.01
27											.02	.03
28											.02	.05
29											.02	.01
30											.01	.01
31											0	---
TOTAL										0	18.18	.19
MEAN										0	.59	.006
MAX										0	4.3	.05
MIN										0	0	0
AC-FT										0	36	.4

06630330 NORTH DITCH NEAR COYOTE SPRINGS, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
AUG 18...	2015	.08	5200	8.0	18.0	10	6.0	2500	2300	470	310

DATE	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
AUG 18...	810	7.1	11	166	0	136	4100	40	.7	2.8	5830

DATE	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL FILTRABLE RESIDUE (MG/L)	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED URANIUM (DIRECT FLUOROMETRIC) (PC/L)
AUG 18...	7.93	1.26	6680	29	2.1	7.8	.00	6.6	8.7	.07	18

DATE	DISSOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUSPENDED GROSS ALPHA AS U-NAT. (UG/L)	DISSOLVED GROSS BETA AS CS-137 (PC/L)	SUSPENDED GROSS BETA AS CS-137 (PC/L)	DISSOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUSPENDED GROSS BETA AS SR90 /Y90 (PC/L)	DISSOLVED RA-226 (RADON METHOD) (PC/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
AUG 18...	85	2.1	23	2.4	18	2.0	.20	52	.01	26

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
AUG 18...	2015	1000	1200	20	3	10	20	400	20	1	10

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
AUG 18...	20	30	8	360	400	140	2	80	80	3000	3200

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
AUG 18...	.0	.0	1	3	70	28	7	7	2.0	40	60

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
AUG 18...	2015	.08	18.0	15	21	40	72	84	90	96	99	100

06632400 ROCK CREEK ABOVE KING CANYON CANAL, NEAR ARLINGTON, WY

LOCATION.--Lat 41°35'07", long 106°13'20", in SE¼SW¼ sec.25, T.19 N., R.79 W., Carbon County, Hydrologic Unit 10180004, on left bank 200 ft (61 m) upstream from point of diversion to King Canyon Canal, 0.4 mi (0.6 km) downstream from Overland Creek, 1.0 mi (1.6 km) southwest of Arlington, and 6.9 mi (11.1 km) southwest of McFadden.

DRAINAGE AREA.--62.9 mi^2 (162.9 km^2).

PERIOD OF RECORD.--October 1965 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,790 ft (2,374 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Minor regulation by Sand Lake, capacity, 1,100 acre-ft (1.36 hm^3) on Deep Creek, 12 mi (19 km) upstream. No diversion above station.

AVERAGE DISCHARGE.--22 years (water years 1955-76), 81.9 ft^3/s (2.319 m^3/s), 59,340 acre-ft/yr (73.2 hm^3/yr), includes records for station 06632500 Rock Creek at Arlington for water years 1955-65, adjusted for diversions by King Canyon Canal.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,590 ft^3/s (73.3 m^3/s) June 19, 1971, gage height, 5.83 ft (1.777 m); minimum daily, 5.5 ft^3/s (0.16 m^3/s) Dec. 21, 1967.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 700 ft^3/s (19.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
June 5	2000	*878	24.9	3.94	1.201

Minimum daily discharge, 7.6 ft^3/s (0.22 m^3/s) Mar. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	18	10	9.0	12	8.3	15	18	480	372	51	36
2	13	16	11	8.5	13	8.3	16	25	520	334	145	32
3	13	16	10	9.0	12	7.6	17	29	607	268	141	28
4	12	15	11	9.5	12	8.0	17	34	631	228	72	28
5	12	15	11	10	12	8.0	17	46	655	207	57	37
6	12	15	10	10	11	9.0	18	48	673	189	51	47
7	12	14	10	10	10	10	17	48	613	172	46	43
8	13	13	10	11	10	12	17	51	578	162	42	35
9	13	12	10	11	11	15	17	62	637	148	40	30
10	17	12	9.9	11	11	14	18	75	607	134	38	29
11	18	11	9.9	10	11	13	16	96	546	119	38	22
12	17	11	9.9	11	10	14	18	109	408	119	37	19
13	16	11	9.9	11	10	16	19	103	386	128	35	18
14	15	12	9.0	11	11	15	18	153	244	96	35	17
15	15	12	8.5	10	11	14	17	189	244	80	32	16
16	18	13	9.0	10	12	14	16	130	292	72	32	22
17	16	13	9.0	10	12	13	15	141	261	64	40	18
18	18	13	9.0	9.5	12	12	15	219	258	62	40	16
19	16	12	9.5	9.0	11	11	13	272	286	66	39	16
20	15	11	9.5	9.5	10	12	14	314	386	62	39	15
21	15	10	10	9.5	9.0	13	14	400	431	85	40	15
22	13	10	10	9.9	9.5	14	15	390	450	62	42	15
23	13	10	10	11	10	14	18	296	436	48	43	19
24	12	10	10	11	11	14	18	254	310	45	42	15
25	11	10	10	11	12	15	18	303	278	43	43	15
26	12	9.5	10	9.0	11	14	19	318	289	64	40	15
27	13	9.0	10	9.2	9.9	14	18	386	278	54	40	15
28	14	9.5	9.5	9.6	9.0	14	16	480	303	42	38	15
29	15	10	9.5	9.8	8.3	13	16	480	303	36	37	13
30	16	10	10	10	---	13	18	395	310	34	36	13
31	17	---	9.5	11	---	14	---	400	---	36	36	---
TOTAL	446	363.0	304.6	311.0	313.7	386.2	502	6264	12620	3631	1487	674
MEAN	14.4	12.1	9.83	10.0	10.8	12.5	16.7	202	421	117	48.0	22.5
MAX	18	18	11	11	13	16	19	480	673	372	145	47
MIN	11	9.0	8.5	8.5	8.3	7.6	13	18	244	34	32	13
AC-FT	885	720	604	617	622	766	996	12420	25030	7200	2950	1340

CAL YR 1975 TOTAL 29163.5 MEAN 79.9 MAX 754 MIN 8.2 AC-FT 57850
WTR YR 1976 TOTAL 27302.5 MEAN 74.6 MAX 673 MIN 7.6 AC-FT 54150

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY

LOCATION.--Lat 41°57'12", long 106°09'38", in NW¼SW¼NE¼ sec.22, T.23 N., R.78 W., Carbon County, Hydrologic Unit 10180005, on right bank 1.6 mi (2.6 km) upstream from State Highway 487, 3.2 mi (5.1 km) downstream from Muddy Creek, and 4.3 mi (6.9 km) northeast of Medicine Bow.

DRAINAGE AREA.--963 mi² (2,494 km²), of which 54 mi² (140 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,600 ft (2,012 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 5,200 acres (21.0 km²) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,060 ft³/s (86.7 m³/s) Apr. 17, 1975, gage height, 9.05 ft (2.758 m); no flow Dec. 27, 1974 to Mar. 6, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,720 ft³/s (77.0 m³/s) Aug. 1, gage height, 8.63 ft (2.630 m); minimum daily, 0.72 ft³/s (0.020 m³/s) Jan. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.4	12	12	.72	1.2	6.3	102	184	226	27	1020	4.8
2	7.6	13	13	.72	1.2	6.2	96	170	188	24	1210	4.8
3	8.0	15	13	.74	1.2	5.8	100	212	161	24	450	4.5
4	8.0	16	14	.78	1.1	5.4	164	243	130	25	204	4.2
5	7.6	16	14	.83	.99	5.3	170	272	103	27	115	4.2
6	7.6	16	14	.86	.90	5.7	212	323	90	21	75	4.2
7	7.1	14	14	.90	.98	6.7	245	345	78	17	51	4.8
8	6.7	15	14	.94	1.1	7.8	155	350	84	14	30	4.8
9	8.4	8.0	14	.96	1.2	9.6	142	334	75	12	23	4.8
10	8.9	6.8	14	.98	1.4	11	140	388	68	10	19	4.8
11	8.9	6.5	14	1.0	1.6	12	175	452	57	9.3	18	4.8
12	8.4	6.4	14	1.0	1.7	13	184	440	50	8.0	16	4.8
13	9.3	7.8	14	1.0	1.9	14	236	415	46	8.0	14	5.0
14	9.3	9.5	13	1.0	2.0	14	258	331	52	7.6	13	5.3
15	10	12	13	1.0	2.1	15	221	339	56	7.1	11	5.5
16	8.9	16	11	1.0	2.2	17	207	388	62	6.7	8.9	5.5
17	8.4	20	9.9	.96	2.3	22	214	306	115	5.8	7.6	5.5
18	8.0	19	8.5	.86	2.4	28	146	265	117	6.2	7.6	5.3
19	7.6	18	6.7	.76	2.3	38	138	258	110	6.7	7.6	5.3
20	6.2	16	5.5	.78	2.3	56	151	250	128	8.0	6.2	5.3
21	5.0	15	4.4	.82	2.3	73	161	252	123	12	5.3	5.3
22	4.8	15	3.6	.84	2.7	90	186	285	86	23	5.0	5.3
23	2.9	14	2.8	.85	3.3	104	197	288	73	16	5.0	5.5
24	3.4	14	2.1	.84	3.9	110	226	403	66	14	5.5	5.8
25	3.8	12	1.7	.81	4.3	109	202	368	57	11	5.5	6.2
26	4.2	12	1.5	.78	4.9	86	207	306	52	9.8	5.0	6.7
27	5.2	12	1.2	.84	5.4	96	238	272	44	13	5.0	6.7
28	6.0	12	1.0	.92	5.6	121	219	243	38	28	4.8	6.7
29	7.0	12	.88	1.0	6.0	108	197	209	37	30	4.8	6.7
30	8.2	12	.80	1.1	---	84	207	195	32	24	4.5	6.2
31	9.8	---	.75	1.1	---	94	---	212	---	21	4.8	---
TOTAL	223.6	393.0	266.33	27.69	70.47	1373.8	5496	9298	2604	476.2	3362.1	159.3
MEAN	7.21	13.1	8.59	.89	2.43	44.3	183	300	86.8	15.4	108	5.31
MAX	10	20	14	1.1	6.0	121	258	452	226	30	1210	6.7
MIN	2.9	6.4	.75	.72	.90	5.3	96	170	32	5.8	4.5	4.2
AC-FT	444	780	528	55	140	2720	10900	18440	5170	945	6670	316

CAL YR 1975 TOTAL 27020.53 MEAN 74.0 MAX 2110 MIN 0 AC-FT 53600
WTR YR 1976 TOTAL 23750.49 MEAN 64.9 MAX 1210 MIN .72 AC-FT 47110

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
OCT 20...	1630	6.2	10.5	290	120	83	21	78
NOV 17...	1330	A20	1.0	280	120	80	20	77
DEC 15...	1330	A13	.5	330	130	92	24	85
JAN 19...	1345	A.76	.0	500	300	140	36	110
FEB 24...	1400	A3.9	.5	280	110	80	19	80
MAR 25...	1545	A109	.5	380	300	110	24	48
APR 12...	1100	184	7.0	160	62	44	13	31
MAY 10...	1500	388	13.5	98	28	27	7.2	15
JUN 03...	1430	161	19.5	220	89	55	19	30
JUL 19...	1400	7.6	22.5	300	130	83	22	75
AUG 16...	1515	8.4	23.0	330	150	90	25	73
SEP 13...	1345	5.3	18.0	300	150	80	25	82

A Daily mean discharge.

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
OCT 20...	2.0	4.0	190	6	166	280	11	.5	15
NOV 17...	2.0	3.7	190	0	156	270	12	.5	13
DEC 15...	2.0	4.2	240	0	197	310	12	.5	17
JAN 19...	2.1	4.7	240	0	197	530	19	.6	15
FEB 24...	2.1	3.7	210	0	172	270	7.0	.5	15
MAR 25...	1.1	4.2	98	0	80	200	13	.4	8.1
APR 12...	1.1	3.5	120	0	98	120	5.4	.3	11
MAY 10...	.7	2.3	85	0	70	52	5.1	.0	14
JUN 03...	.9	3.3	160	0	131	150	4.5	.4	14
JUL 19...	1.9	4.2	190	6	166	290	11	.6	14
AUG 16...	1.8	4.7	210	3	177	310	9.1	.6	13
SEP 13...	2.1	4.2	180	3	153	320	12	.6	11

06634600 LITTLE MEDICINE BOW RIVER NEAR MEDICINE BOW, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 20...	591	.80	9.89	.02	.03	28	.47	--
NOV 17...	570	.78	30.8	.11	.17	608	33	--
DEC 15...	664	.90	23.3	.09	.07	84	2.9	--
JAN 19...	971	1.32	1.99	.16	.03	54	.11	--
FEB 24...	584	.79	6.15	.02	.01	25	.26	--
MAR 25...	671	.91	197	47	.77	2180	642	--
APR 12...	293	.40	146	.20	.34	1160	576	85
MAY 10...	165	.22	173	.09	.31	1080	1130	84
JUN 03...	357	.49	155	.09	.10	185	80	--
JUL 19...	596	.81	12.2	.00	.03	3	.06	82
AUG 16...	625	.85	14.2	.00	.04	57	1.3	94
SEP 13...	625	.85	8.94	.00	.01	3	.04	--

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
MAR 25...	1545	.5	109	2	2	2	2	3	70	89	99	100
APR 12...	1100	7.0	184	0	0	1	17	59	80	94	100	--
MAY 10...	1500	13.5	388	2	4	9	50	75	90	98	100	--

06634990 HANNA DRAW NEAR HANNA, WY

LOCATION.--Lat 42°00'22", long 106°30'30", in SE¼SW¼NE¼ sec.34, T.24 N., R.81 W., Carbon County, Hydrologic Unit 10180004, on left bank 0.2 mi (0.3 km) upstream from mouth and 9.5 mi (15.3 km) north of Hanna.

DRAINAGE AREA.--21.6 mi^2 (55.9 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,440 ft (1,963 m), from topographic map.

REMARKS.--Records poor.

EXTREMES FOR CURRENT PERIOD.--April to September 1975: Maximum discharge during period, 150 ft^3/s (4.25 m^3/s) July 5, gage height, 3.05 ft (0.930 m); no flow for many days.

Water year 1976: Maximum discharge, 385 ft^3/s (10.9 m^3/s) Aug. 1, gage height, 4.08 ft (1.244 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1974 TO SEPTEMBER 1975
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							.35	.36	.28	0		
2							.30	.28	.10	0		
3							.50	.25	0	0		
4							30	.28	0	0		
5							35	.36	0	4.4		
6							20	.55	0	3.5		
7							6.0	.45	0	.45		
8							1.5	.45	0	.05		
9							.60	.50	0	2.9		
10							.40	.40	0	2.0		
11							.30	.32	0	.25		
12							.40	.32	0	0		
13							.35	.25	0	0		
14							1.0	.25	0	0		
15							3.5	.28	0	.10		
16							3.0	.19	0	.03		
17							2.0	.15	0	0		
18							.70	.10	0	0		
19							.35	.10	0	0		
20							.50	.15	0	0		
21							.66	.22	0	0		
22							1.0	.36	0	.05		
23							1.4	.36	0	.08		
24							.93	.25	0	0		
25							.78	.15	0	0		
26							.78	.10	0	0		
27							.66	.20	0	0		
28							.45	.48	0	0		
29							.45	1.1	0	0		
30							.45	.60	0	0		
31							---	.40	---	0		---
TOTAL							114.31	10.21	.38	13.81	0	0
MEAN							3.81	.33	.013	.45	0	0
MAX							35	1.1	.28	4.4	0	0
MIN							.30	.10	0	0	0	0
AC-FT							227	20	.8	27	0	0

06634990 HANNA DRAW NEAR HANNA, WY--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1					0	2.7	.45	.10	.10	0	14	
2					0	1.6	.45	.05	.05	0	6.5	
3					0	1.7	.40	.05	.01	0	1.0	
4					0	.45	.50	.10	0	0	.72	
5					0	.10	.85	.05	0	0	1.2	
6					0	.11	1.1	.05	0	0	.28	
7					0	.20	.66	0	0	0	0	
8					0	.02	.85	0	0	0	0	
9					0	.10	1.0	0	0	0	0	
10					0	.80	.93	.05	0	0	0	
11					0	1.2	.72	.12	0	0	0	
12					0	.70	1.0	.05	0	0	0	
13					0	.55	1.2	0	0	0	0	
14					0	.55	1.0	0	.36	0	0	
15					0	.02	1.1	0	1.8	0	0	
16					0	.20	1.0	0	1.5	0	0	
17					0	.70	.60	0	.72	0	0	
18					0	5.5	.45	0	.55	0	0	
19					0	2.7	.32	0	.60	0	0	
20					0	1.2	.32	0	.25	0	0	
21					0	1.2	.36	0	.10	0	0	
22					0	.70	.40	.10	0	0	0	
23					0	1.7	.50	.25	0	0	0	
24					0	2.8	.40	.36	0	0	0	
25					0	1.9	.32	.22	0	0	0	
26					0	1.0	.40	.10	0	.50	0	
27					0	.70	.40	0	0	.12	0	
28					2.0	.60	.28	0	0	0	0	
29					2.4	.40	.22	.09	0	0	0	
30					---	.20	.15	.25	0	0	0	
31		---			---	.22	---	.15	---	0	0	---
TOTAL	0	0	0	0	4.4	32.52	18.33	2.14	6.04	.62	23.70	0
MEAN	0	0	0	0	.15	1.05	.61	.069	.20	.020	.76	0
MAX	0	0	0	0	2.4	5.5	1.2	.36	1.8	.50	14	0
MIN	0	0	0	0	0	.02	.15	0	0	0	0	0
AC-FT	0	0	0	0	8.7	65	36	4.2	12	1.2	47	0

WTR YR 1976 TOTAL 87.75 MEAN .24 MAX 14 MIN 0 AC-FT 174

06634990 HANNA DRAW NEAR HANNA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)
MAR											
24...	1430	A2.8	1350	7.9	5.5	330	9.5	4.2	590	380	110
30...	1200	A.20	2820	8.0	2.5	15	10.7	1.8	1400	1000	260
APR											
12...	1300	1.1	2100	8.2	14.0	30	9.7	2.0	940	610	180
MAY											
11...	1145	.12	2980	8.2	14.0	80	8.7	2.7	1500	1100	270
24...	1315	.28	2800	8.2	17.0	15	9.2	1.5	1500	1200	270
AUG											
02...	1900	45	615	7.6	15.5	9000	8.1	6.4	270	170	67

A Daily mean discharge.

DATE	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)
MAR										
24...	77	86	1.5	7.3	263	0	216	550	6.9	.3
30...	180	200	2.3	9.3	474	0	389	1400	27	.3
APR										
12...	120	170	2.4	8.8	411	0	337	930	13	.4
MAY										
11...	190	240	2.7	9.5	462	0	379	1500	16	.4
24...	210	290	3.2	10	462	0	379	1600	19	.2
AUG										
02...	24	27	.7	7.7	117	0	96	220	5.5	.4

DATE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
MAR										
24...	5.3	973	1.32	7.36	.25	.16	2.4	2.6	2.9	.33
30...	7.2	2320	3.16	1.25	.20	.13	.85	.98	1.2	.02
APR										
12...	5.7	1630	2.22	4.84	.03	.02	.93	.95	.98	.04
MAY										
11...	5.2	2460	3.35	.80	.03	.03	1.2	1.2	1.2	.10
24...	5.4	2630	3.58	1.99	.05	.03	.57	.60	.65	.03
AUG										
02...	5.3	415	.56	50.4	.73	.16	24	24	25	3.0

DATE	TIM	TOTAL FILT-RABLE RESIDUE (MG/L)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)
MAR											
24...	143	1300	690	8000	--	12	--	10	--	90	<10
30...	120	--	--	--	--	--	--	--	--	60	--
APR											
12...	130	--	--	--	0	--	0	--	10	100	--
MAY											
11...	114	--	--	100	--	1	--	0	--	90	10
24...	131	--	--	240	--	0	--	10	--	130	<10
AUG											
02...	190	--	--	220000	--	250	--	20	--	100	20

06634990 HANNA DRAW NEAR HANNA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)
MAR											
24...	--	40	--	30	--	19000	60	100	--	20	--
30...	--	--	--	--	--	--	40	--	--	--	--
APR											
12...	1	--	0	--	2	--	40	--	1	--	30
MAY											
11...	--	10	--	10	--	330	40	<100	--	50	--
24...	--	10	--	10	--	550	70	<100	--	60	--
AUG											
02...	--	350	--	510	--	450000	90	600	--	300	--

DATE	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)
MAR											
24...	490	--	.0	--	3	--	50	--	0	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
APR											
12...	--	120	--	.0	--	2	--	4	--	1	.7
MAY											
11...	350	--	.0	--	2	--	50	--	0	--	--
24...	250	--	.0	--	1	--	50	--	0	--	--
AUG											
02...	9200	--	.8	--	0	--	560	--	6	--	--

DATE	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED URANIUM (DIRECT FLUORO-METRIC) (PC/L)	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GHOSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L)
MAR										
24...	80	--	10	48	56	13	28	11	22	.17
30...	--	--	--	--	--	--	--	--	--	--
APR										
12...	--	10	--	--	--	--	--	--	--	--
MAY										
11...	0	--	--	--	--	--	--	--	--	--
24...	10	--	--	--	--	--	--	--	--	--
AUG										
02...	1900	--	--	--	--	--	--	--	--	--

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. FALL DIAM. % FINER THAN .004 MM	SUS. SED. FALL DIAM. % FINER THAN .016 MM	SUS. SED. FALL DIAM. % FINER THAN .062 MM	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
MAR									
24...	1430	5.5	A2.0	1040	7.9	--	--	--	--
30...	1200	2.5	A.20	72	.04	--	--	--	--
APR									
12...	1300	14.0	1.1	78	.23	--	--	--	79
MAY									
11...	1145	14.0	.12	70	.02	--	--	--	63
24...	1315	17.0	.20	48	.04	--	--	--	65
AUG									
02...	1900	15.5	45	25000	3140	67	91	100	--

A Daily mean discharge.

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
MAR												
24...	1430	5.5	2.0	3	4	5	30	46	67	88	99	100
MAY												
11...	1145	14.0	.12	6	10	19	57	70	90	98	100	--

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY

LOCATION.--Lat 42°00'35", long 106°30'45", in SE¼NW¼ sec.34, T.24 N., R.81 W., Carbon County, Hydrologic Unit 10180004, on left bank 15 ft (5 m) downstream from county highway bridge, 2.0 mi (3.2 km) upstream from Troublesome Creek, 9.0 mi (14.5 km) upstream from high-water line of Seminoe Reservoir at elevation 6,357 ft (1,938 m), and 10 mi (16 km) north of Hanna.

DRAINAGE AREA.--2,338 mi^2 (6,055 km^2), of which 396 mi^2 (1,026 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1939 to current year.

REVISED RECORDS.--WSP 956: 1941(M). WSP 1440: 1940(M), 1941. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,415.40 ft (1,955.414 m) above mean sea level.

REMARKS.--Records good except those for winter period, which are poor. Many small reservoirs above station, total capacity, about 6,000 acre-ft (7.40 hm^3), for irrigation. Diversions for irrigation of about 43,000 acres (174 km^2) above station.

COOPERATION.--Seven discharge measurements furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--37 years, 178 ft^3/s (5.041 m^3/s), 129,000 acre-ft/yr (159 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,590 ft^3/s (187 m^3/s) Mar. 29, 1943, gage height, 5.23 ft (1.594 m), from rating curve extended above 2,500 ft^3/s (70.8 m^3/s); maximum gage height, 6.74 ft (2.054 m) May 12, 1973; minimum daily discharge, 1.1 ft^3/s (0.031 m^3/s) Sept. 7-14, 1959, Aug. 7, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,530 ft^3/s (43.3 m^3/s) Aug. 2, gage height, 3.39 ft (1.033 m); minimum daily, 11 ft^3/s (0.31 m^3/s) Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	84	47	31	34	82	190	350	596	174	97	20
2	39	79	47	30	34	82	198	335	575	178	1120	20
3	38	77	47	29	33	75	198	325	554	198	778	19
4	36	77	46	29	30	70	215	355	540	285	504	19
5	41	74	46	30	29	69	285	384	547	310	360	18
6	43	70	47	30	28	71	325	414	540	260	275	18
7	39	68	47	30	29	75	378	462	528	210	235	16
8	36	68	46	30	31	78	390	480	547	170	166	15
9	32	66	46	30	33	82	300	468	534	146	121	13
10	38	63	46	31	36	86	290	480	498	121	100	13
11	35	62	46	31	38	90	295	540	480	106	87	14
12	36	62	46	32	40	91	345	596	462	92	74	13
13	38	63	45	32	42	93	366	610	444	84	68	13
14	41	64	43	32	45	94	414	596	432	72	64	12
15	43	65	41	33	47	95	432	528	386	61	61	11
16	44	65	40	33	50	99	402	624	360	53	57	13
17	44	65	39	33	53	103	396	694	444	53	55	18
18	44	64	38	32	55	109	396	603	568	50	53	16
19	44	62	37	31	55	118	320	582	522	46	50	18
20	43	56	36	30	54	132	300	630	528	48	44	19
21	41	57	35	30	52	154	310	673	540	51	41	20
22	39	58	35	30	53	193	315	673	468	46	39	20
23	42	58	34	31	56	222	345	743	372	51	35	20
24	38	57	34	31	59	245	360	799	384	55	35	19
25	42	56	34	30	62	240	408	836	448	59	35	20
26	48	56	33	29	66	235	384	701	438	66	33	20
27	56	54	33	30	70	206	396	659	355	92	32	23
28	60	52	33	31	73	230	414	610	280	61	30	28
29	59	50	33	32	76	250	366	589	206	57	28	29
30	77	48	32	33	---	220	345	596	170	77	26	29
31	82	---	32	34	---	182	---	580	---	79	25	---
TOTAL	1381	1900	1244	960	1363	4171	10078	17532	13746	3411	4728	546
MEAN	44.5	63.3	40.1	31.0	47.0	135	336	566	458	110	153	18.2
MAX	82	84	47	34	76	250	432	836	596	310	1120	29
MIN	32	48	32	29	28	69	190	325	170	46	25	11
AC-FT	2740	3770	2470	1900	2700	8270	19990	34770	27270	6770	9380	1080

CAL YR 1975 TOTAL 73209 MEAN 201 MAX 1730 MIN 17 AC-FT 145200
WTR YR 1976 TOTAL 61060 MEAN 167 MAX 1120 MIN 11 AC-FT 121100

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
OCT 21...	1140	40	8.0	680	510	150	75	130
NOV 17...	1615	A65	.5	570	410	140	54	100
DEC 15...	1700	A41	.5	580	400	130	59	110
JAN 19...	1800	A31	.0	630	450	160	57	94
FEB 24...	1145	A59	.5	590	420	140	60	110
MAR 24...	1145	225	1.0	380	250	86	40	76
APR 12...	1615	345	9.5	330	200	74	37	74
MAY 11...	0940	450	12.0	170	80	43	16	30
JUN 07...	1315	510	18.0	200	100	48	21	32
JUL 20...	1200	48	16.0	600	400	130	68	130
AUG 18...	1715	53	17.0	510	360	130	46	85
SEP 14...	1100	12	14.0	660	500	160	64	110

A Daily mean discharge.

DATE	SODIUM AD-SORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
OCT 21...	2.2	4.0	200	3	169	710	30	.6	3.7
NOV 17...	1.8	3.3	200	0	164	580	37	.6	5.0
DEC 15...	2.0	3.3	220	0	180	610	26	.6	7.4
JAN 19...	1.6	3.5	220	0	180	620	33	.6	8.0
FEB 24...	2.0	3.5	210	0	172	620	30	.6	6.7
MAR 24...	1.7	3.0	160	0	131	300	20	.5	7.3
APR 12...	1.8	3.5	160	0	131	350	16	.5	9.2
MAY 11...	1.0	2.1	110	0	90	140	8.3	.3	12
JUN 07...	1.0	1.6	120	0	98	160	8.2	.3	8.6
JUL 20...	2.3	3.3	240	0	197	620	34	.8	4.3
AUG 18...	1.6	3.0	180	0	148	470	27	.6	3.9
SEP 14...	1.9	4.2	200	0	164	630	50	.7	5.0

06635000 MEDICINE BOW RIVER ABOVE SEMINOE RESERVOIR, NEAR HANNA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM
OCT 21...	1210	1.65	131	.45	.05	46	5.0	--
NOV 17...	1020	1.39	179	.50	.02	69	12	--
DEC 15...	1060	1.44	117	1.2	.04	72	8.0	--
JAN 19...	1080	1.47	90.4	.52	.03	78	6.5	--
FEB 24...	1080	1.47	172	2.0	.03	40	6.4	--
MAR 24...	700	.95	425	.72	.31	910	553	--
APR 12...	642	.87	598	.56	.29	1050	978	94
MAY 11...	310	.42	377	.16	.38	1180	1430	86
JUN 07...	335	.46	461	.11	.11	380	523	79
JUL 20...	1110	1.51	144	.00	.03	38	4.9	89
AUG 18...	852	1.16	122	.02	.04	65	9.3	77
SEP 14...	1110	1.51	36.0	.00	.02	3	.10	--

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
MAR 24...	1145	1.0	225	12	16	26	52
JUL 20...	1200	16.0	48	3	6	16	34

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM
MAR 24...	68	75	78	81	85	98	100
JUL 20...	47	55	60	66	75	86	100

06635500 SEMINOE RESERVOIR NEAR LEO, WY

LOCATION.--Lat 42°09'21", long 106°54'29", in NW¼NE¼ sec.8, T.25 N., R.84 W., Carbon County, Hydrologic Unit 10180003, on upstream side near center of dam on North Platte River, 6.0 mi (9.7 km) upstream from high-water line of Pathfinder Reservoir at elevation 5,850.1 ft (1,783.11 m), and 9.0 mi (14.5 km) southwest of Leo.

DRAINAGE AREA (REVISED).--7,230 mi² (18,726 km²), of which 589 mi² (1,526 km²) is probably noncontributing. The 3,959 mi² (10,254 km²) in Great Divide basin is not included.

RESERVOIR-CONTENTS RECORD

PERIOD OF RECORD.--February 1939 to current year. Monthend figures only for February, March 1939, October 1940 to September 1950, published in WSP 1310

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,190.00 ft (1,886.712 m) above mean sea level (levels by Bureau of Reclamation); gage readings have been reduced to elevations above mean sea level. Prior to Apr. 20, 1939, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by concrete-arch dam. Storage began Apr. 1, 1939, but some regulation for power development during period Jan. 1 to Mar. 31, 1939. Capacity, 1,011,000 acre-ft (1,250 hm³) below elevation 6,357 ft (1,937.6 m), top of spillway gates. Figures given herein represent total contents, of which 30,100 acre-ft (37.1 hm³), capacity below elevation 6,239 ft (1,901.6 m), minimum operating level for power development, are not available for power development and 325 acre-ft (0.401 hm³), below elevation 6,185.09 ft (1,885.215 m), penstock invert, is dead storage. Water is used for irrigation and power development.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,073,000 acre-ft (1,320 hm³) June 20, 1949, elevation 6,359.29 ft (1,938.312 m); minimum daily (since appreciable storage was attained), 19,040 acre-ft (23.5 hm³) Sept. 1, 1939, elevation, 6,228.00 ft (1,898.294 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 904,000 acre-ft (1,110 hm³) Aug. 6-8; maximum daily elevation, 6,351.18 ft (1,935.840 m) Aug. 7, 8; minimum daily contents, 538,000 acre-ft (663 hm³) Apr. 4, elevation, 6,327.03 ft (1,928.479 m).

Capacity table (elevation, in feet, and contents, in acre-ft)

6,327	538,000	6,340	716,000
6,330	575,000	6,345	796,000
6,335	642,000	6,350	883,000
		6,352	920,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	876000	806000	752000	687000	611000	565000	540000	577000	719000	869000	895000	891000
2	874000	804000	751000	684000	609000	564000	540000	579000	724000	873000	898000	889000
3	871000	803000	749000	683000	606000	563000	539000	580000	729000	877000	900000	888000
4	869000	802000	748000	680000	604000	561000	538000	582000	734000	880000	902000	887000
5	866000	801000	746000	677000	602000	560000	540000	584000	741000	883000	903000	886000
6	864000	800000	745000	674000	600000	559000	540000	585000	748000	884000	904000	887000
7	862000	798000	743000	671000	598000	558000	542000	587000	754000	886000	904000	885000
8	860000	796000	741000	669000	597000	557000	544000	590000	760000	887000	904000	884000
9	857000	795000	740000	666000	597000	557000	545000	593000	766000	888000	903000	883000
10	855000	793000	738000	664000	595000	555000	546000	595000	772000	888000	903000	882000
11	852000	791000	738000	661000	594000	554000	548000	598000	778000	888000	903000	880000
12	849000	789000	735000	659000	592000	553000	550000	601000	784000	889000	903000	879000
13	847000	787000	732000	656000	591000	552000	552000	605000	791000	889000	903000	878000
14	844000	786000	731000	654000	590000	551000	554000	608000	796000	888000	903000	878000
15	841000	784000	728000	650000	588000	549000	555000	613000	802000	888000	903000	877000
16	839000	782000	725000	648000	587000	548000	558000	618000	807000	887000	902000	876000
17	837000	780000	723000	646000	585000	548000	559000	622000	813000	887000	902000	876000
18	834000	778000	721000	643000	583000	547000	561000	626000	818000	886000	900000	874000
19	832000	777000	719000	641000	581000	547000	562000	630000	825000	885000	900000	873000
20	830000	775000	717000	638000	580000	546000	563000	635000	831000	885000	899000	873000
21	827000	773000	714000	636000	578000	545000	563000	641000	836000	886000	899000	872000
22	825000	772000	711000	633000	577000	545000	564000	648000	840000	887000	898000	872000
23	823000	769000	710000	630000	575000	545000	564000	656000	846000	887000	898000	870000
24	822000	768000	707000	628000	574000	544000	566000	666000	851000	888000	897000	869000
25	820000	765000	705000	625000	572000	543000	568000	674000	853000	889000	896000	869000
26	818000	763000	702000	623000	570000	544000	570000	681000	857000	890000	895000	868000
27	815000	761000	700000	620000	569000	543000	572000	688000	860000	891000	894000	868000
28	812000	759000	697000	619000	568000	543000	573000	694000	862000	891000	893000	867000
29	811000	756000	695000	616000	567000	542000	574000	701000	865000	892000	893000	867000
30	808000	755000	692000	615000	---	542000	575000	708000	866000	892000	893000	865000
31	807000	---	689000	612000	---	541000	---	713000	---	893000	892000	---
MAX	876000	806000	752000	687000	611000	565000	575000	713000	866000	893000	904000	891000
MIN	807000	755000	689000	612000	567000	541000	538000	577000	719000	869000	892000	865000
(†)	6,345.65	6,342.50	6,338.23	6,332.81	6,329.32	6,327.30	6,330.01	6,339.80	6,349.09	6,350.58	6,350.52	6,349.03
(‡)	a-66,000	-52,000	-66,000	-77,000	-45,000	-26,000	+34,000	+138,000	+153,000	+27,000	-1,000	-27,000

CAL YR 1975 MAX 978000 MIN 445000 ‡+44000
WTR YR 1976 MAX 904000 MIN 538000 ‡ -8000

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

a New capacity table put in use Oct. 1, 1975. Contents on Sept. 30, 1975, from new capacity table, 878,000 acre-ft.

06635500 SEMINOE RESERVOIR NEAR LEO, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Reservoir sampled at one site prior to July 1973 and at all sites thereafter. Samples are collected at the surface, the thermocline or midpoint if a well defined thermocline is not present, and at the bottom. Dissolved oxygen and temperature are measured at additional depths. Reservoir storage represents total contents at 2400 hours.

SAMPLE SITE 1.--Lat 42°08'38", long 106°52'57", in NE¼NE¼NE¼ sec.16, T.25 N., R.84 W., 1.6 mi (2.6 km) upstream from dam.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	RESER-VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS-SOLVED OXYGEN (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED PHOS-PHORUS (P) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
FEB., 1976 26...	570,000	8.7	1.0	1.5	11.4	273	.37	.21	--	.01	2300	1.2
			45	2.5	12.1	281	.38	.21	--	.01	1500	3.3
			93	2.0	11.8	327	.44	.22	--	.00	38	3.4
JULY 14...	888,000	14.0	SURFACE	19.5	8.1	305	.41	.10	.00	.00	390	1.4
			40	15.0	7.9	306	.42	.13	.00	.01	300	.9
			160	10.3	6.9	325	.44	.24	.01	.03	13	2.2
AUG. 05...	903,000	15.1	SURFACE	20.5	7.8	304	.41	.11	.00	.00	--	.4
			40	17.5	7.0	295	.40	.13	.00	.00	--	.3
			160	13.5	6.5	302	.41	.22	.05	.01	--	4.7
AUG. 18...	900,000	15.4	1.0	--	--	--	--	.12	.00	.00	2100	.3
			60	--	--	--	--	.12	.00	.01	2100	.3
			161	--	--	--	--	.22	.00	.02	5	5.7
SEP. 02...	888,000	11.8	1.0	--	--	301	.41	.08	.00	.00	--	.3
			60	--	--	297	.40	.12	.00	.00	--	.3
			160	--	--	308	.42	.19	.00	.00	--	4.0

06635500 SEMINOE RESERVOIR NEAR LEO, WY--Continued

SAMPLE SITE 1.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE TIME	FEB 26,76 1315	FEB 26,76 1320	FEB 26,76 1325	JUL 14,76 1000	JUL 14,76 1010
TOTAL CELLS/ML	38	1500	2300	13	300
DEPTH BELOW SURFACE (FT)	93	45	1.0	160	40
DIVERSITY: DIVISION	1.1	0.3	0.0	1.0	0.7
.CLASS	1.8	0.8	0.0	1.0	0.7
..ORDER	1.8	0.8	0.0	1.0	1.1
...FAMILY	1.8	0.8	0.0	1.0	1.1
....GENUS	1.8	0.8	0.0	1.0	1.1

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	5	15	--	-	--	-	7#	51	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	16#	43	1300#	83	2300#	101	*	0	230#	79
..PENNALES										
...NAVICULACEAE										
....NAVICULA	--	-	--	-	--	-	--	-	21	8
...NITZSCHIACEAE										
....NITZSCHIA	*	0	--	-	--	-	7#	51	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....OCHROMONAS	11#	29	200	14	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.MYXOPHYCEAE										
..OSCILLATORIALES										
...NOSTOCACEAE										
....APHANIZOMENON	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	21	8
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	67	5	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	21	8
...PERIDINIACEAE										
....PERIDINIUM	5	15	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06635500 SEMINOE RESERVOIR NEAR LEO, WY--Continued

SAMPLE SITE 1.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JUL 14,76	AUG 18,76	AUG 18,76	AUG 18,76
TIME	1020	1530	1535	1540
DEPTH BELOW SURFACE (FT)	SURFACE	161	60	1.0
TOTAL CELLS/ML	390	5	2100	2100
DIVERSITY: DIVISION	0.0	0.0	0.1	0.5
.CLASS	0.0	0.0	0.1	0.5
..ORDER	0.0	0.0	0.1	0.5
...FAMILY	0.0	0.0	0.1	0.5
....GENUS	0.0	0.0	0.1	0.5

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	16	1	15	1
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	*	0	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	5#	101	--	-	--	-
..PENNALES								
...NAVICULACEAE								
....NAVICULA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.MYXOPHYCEAE								
..OSCILLATORIALES								
...NOSTOCACEAE								
....APHANIZOMENON	--	-	--	-	2000#	99	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	1900#	90
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	390#	101	--	-	--	-	--	-
...CRYPTOMONODACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	210	11
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	--	-
...PERIDINIACEAE								
....PERIDINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06635500 SEMINOE RESERVOIR NEAR LEO, WY--Continued

SAMPLE SITE 2.--Lat 42°00'34", long 106°50'23", in NE¼SW¼NW¼ sec.35, T.24 N., R.84 W., about 13 mi (21 km) upstream from dam in the North Platte River arm of reservoir.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	RESERVOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DISSOLVED OXYGEN (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
JULY, 1976												
14...	888,000	7.1	SURFACE	19.5	8.1	230	.31	.01	.00	.01	1500	.7
			40	13.5	7.2	233	.32	.02	.01	.01	570	2.8
			68	13.0	6.3	241	.33	.15	.00	.02	150	8.3
AUG.												
06...	904,000	5.2	SURFACE	18.5	7.5	253	.34	.04	.01	.00	--	.3
			50	15.0	5.5	261	.36	.15	.00	.01	--	3.6
			75	12.0	4.6	272	.37	.21	.00	.02	--	9.9
AUG.												
19...	900,000	5.7	1.0	--	--	--	--	.08	.03	.01	67000	.6
			60	--	--	--	--	.10	.00	.01	150	.9
			74	--	--	--	--	.21	.02	.02	190	8.6
SEP.												
03...	888,000	7.7	1.0	--	--	267	.36	.02	.00	.00	--	.4
			40	--	--	272	.37	.06	.00	.00	--	.4
			75	--	--	276	.38	.22	.00	.01	--	8.8

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JUL 14,76	JUL 14,76	JUL 14,76	AUG 19,76	AUG 19,76	AUG 19,76
TIME	1130	1140	1150	0925	0930	0935
TOTAL CELLS/ML	150	570	1500	190	150	67000
DIVERSITY: DIVISION	1.2	1.6	1.9	0.0	1.1	0.1
.CLASS	1.2	1.6	1.9	0.0	1.1	0.1
..ORDER	1.7	2.2	2.3	1.0	1.3	0.1
...FAMILY	2.1	2.5	2.4	2.0	2.1	0.1
....GENUS	2.2	2.8	2.8	2.5	2.2	0.1

ORGANISM	CELLS /ML	PERCENT	CELLS /ML	PERCENT	CELLS /ML	PERCENT	CELLS /ML	PERCENT	CELLS /ML	PERCENT	CELLS /ML	PERCENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	9	2	12	1	--	-	4	3	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	4	3	9	2	35	3	--	-	8	6	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	17	4	--	-	--	-	--	-	*	0
...VOLVOCACEAE												
....PANDORINA	--	-	--	-	190	13	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	4	3	87#	16	290#	21	7	4	20	13	*	0
....MELOSIRA	40#	27	100#	19	200	14	70#	38	4	3	--	-
..PENNALES												
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	--	-	7	4	--	-	--	-
....EPITHEMIA	4	3	--	-	--	-	14	8	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	--	-	--	-	7	4	--	-	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	18	12	96#	17	150	11	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-	56#	30	--	-	--	-
....SYNEDRA	--	-	--	-	--	-	7	4	--	-	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	4	3	--	-	--	-	14	8	4	3	--	-
...NAVICULACEAE												
....NAVICULA	--	-	--	-	--	-	7	4	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	9	6	9	2	--	-	--	-	4	3	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.MYXOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	70	13	--	-	--	-	--	-	--	-
..OSCILLATORIALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	350#	25	--	-	--	-	--	-
....APHANIZOMENON	--	-	--	-	--	-	--	-	71#	47	67000#	100
...OSCILLATORIACEAE												
....OSCILLATORIA	66#	45	--	-	--	-	--	-	39#	26	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.CRYPTOPHYCEAE												
..CRYPTOMONIDALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	35	7	210	15	--	-	--	-	--	-
...CRYPTOMONODACEAE												
....CRYPTOMONAS	--	-	130#	24	24	2	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06635500 SEMINOE RESERVOIR NEAR LEO, WY--Continued

SAMPLE SITE 3.--Lat 42°02'38", long 106°49'27", in SE¼SW¼SW¼ sec.13, T.24 N., R.83 W., about 10 mi (16 km) upstream from dam in the Medicine Bow River arm of reservoir.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	RESER-VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS-SOLVED OXYGEN (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED PHOS-PHORUS (P) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
JULY, 1976												
14...	888,000	7.3	SURFACE	19.0	8.2	265	.36	.04	.00	.01	2600	1.5
			40	14.0	7.2	282	.38	.14	.00	.02	60	5.3
			78	12.0	6.4	280	.38	.17	.00	.02	110	9.6
AUG.												
06...	904,000	5.4	SURFACE	18.5	7.7	287	.39	.08	.00	.00	--	.3
			40	16.5	6.9	290	.39	.11	.02	.00	--	.4
			83	12.5	5.3	288	.39	.21	.00	.01	--	5.7
AUG.												
19...	900,000	5.7	1.0	--	--	--	--	.07	.00	.01	97000	.3
			40	--	--	--	--	.07	.00	.00	42000	.3
			82	--	--	--	--	.25	.00	.03	450	7.6
SEP.												
03...	888,000	6.9	1.0	--	--	298	.41	.01	.00	.00	--	.3
			40	--	--	301	.41	.03	.00	.00	--	.2
			80	--	--	294	.40	.24	.02	.02	--	3.1

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JUL 14,76	JUL 14,76	JUL 14,76	AUG 19,76	AUG 19,76	AUG 19,76
TIME	1050	1100	1110	1015	1020	1025
DEPTH BELOW SURFACE (FT)	78	40	SURFACE	82	40	1.0
TOTAL CELLS/ML	110	60	2600	450	42000	97000
DIVERSITY: DIVISION	1.6	1.4	0.9	0.8	0.1	0.1
.CLASS	1.6	1.4	0.9	0.8	0.1	0.1
..ORDER	1.9	2.1	1.4	1.0	0.1	0.1
...FAMILY	1.9	2.1	1.6	1.0	0.1	0.1
....GENUS	2.1	2.1	1.6	1.1	0.5	0.1

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...OOCYSTACEAE												
....ANKISTRODESMUS	16#	16	--	-	--	-	--	-	--	-	*	0
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	12#	21	--	-	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	3	6	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	16#	16	21#	36	--	-	34	8	--	-	*	0
....MELOSIRA	5	6	--	-	--	-	*	0	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-	34	8	--	-	--	-
..PENNALES												
...NITZSCHIACEAE												
....NITZSCHIA	11	11	12#	21	--	-	--	-	--	-	--	-
...SURIRELLACEAE												
....SURIRELLA	--	-	--	-	--	-	34	8	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.MYXOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	380#	15	--	-	--	-	--	-
..OSCILLATORIALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	1300#	52	--	-	3700	9	--	-
....APHANIZOMENON	--	-	--	-	--	-	340#	77	37000#	91	96000#	100
...OSCILLATORIACEAE												
....OSCILLATORIA	53#	51	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.CRYPTOPHYCEAE												
..CRYPTOMONIDALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	5	6	--	-	800#	31	--	-	--	-	*	0
...CRYPTOMONODACEAE												
....CRYPTOMONAS	--	-	--	-	64	3	--	-	250	1	*	0
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....TRACHELOMONAS	--	-	--	-	--	-	*	0	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	--	-	12#	21	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06636000 NORTH PLATTE RIVER ABOVE PATHFINDER RESERVOIR, WY

LOCATION.--Lat 42°10'42", long 106°52'33", in NW¼NE¼SW¼ sec.34, T.26 N., R.84 W., Carbon County, Hydrologic Unit 10180003, at Bureau of Reclamation gaging station, 1,800 ft (549 m) downstream from Kortes Dam, 1.2 mi (1.9 km) upstream from Lost Creek, 5.0 mi (8.0 km) upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft (1,783 m), and 6.0 mi (9.6 km) southwest of Leo.

DRAINAGE AREA (REVISED).--7,241 mi^2 (18,754 km^2), of which 589 mi^2 (1,526 km^2) is probably noncontributing. The 3,959 mi^2 (10,254 km^2) in Great Divide Basin is not included.

PERIOD OF RECORD.--Water years 1969 to current year.

REMARKS.--Discharge records furnished by Bureau of Reclamation.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)
OCT 08...	0930	1370	440	8.0	11.0	6	8.9
NOV 13...	0945	1690	440	7.9	7.5	10	9.0
DEC 11...	0930	1660	450	8.0	3.5	6	9.7
FEB 12...	1000	1270	500	8.0	2.0	2	10.8
MAR 13...	0930	1000	550	7.9	2.0	2	10.4
APR 15...	1200	1780	540	7.8	4.0	2	10.6
MAY 12...	0930	1200	500	7.9	7.0	4	9.1
JUN 17...	0930	1500	480	8.0	9.0	4	9.8
JUL 15...	1015	541	480	7.7	13.0	3	7.5
AUG 11...	0730	1010	500	7.7	13.0	3	7.5
SEP 08...	0930	1090	540	7.7	12.0	4	8.1

06637550 SWEETWATER RIVER NEAR SOUTH PASS CITY, WY

LOCATION.--Lat 44°22'30", long 108°52'56", in NW¼NW¼ sec.28, T.28 N., R.101 W., Fremont County, Hydrologic Unit 10180006, 100 ft (30 m) downstream from small tributary, 0.8 mi (1.3 km) downstream from Fog Gulch, 1.2 mi (1.9 km) downstream from State Highway 28, and 7.6 mi (12.2 km) southwest of South Pass City.

DRAINAGE AREA.--177 mi² (458 km²).

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Peak-flow information also collected at this site.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT								
24...	1535	65	160	--	.5	1	--	--
MAY								
10...	1410	333	100	--	7.0	5	46	0
JUN								
08...	1500	377	<50	8.3	10.0	3	30	9
JUL								
09...	0915	130	46	--	13.0	4	19	0
29...	1250	48	55	--	16.0	1	--	--
SEP								
07...	1600	40	60	--	16.5	0	26	0

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
OCT									
24...	--	--	--	--	--	--	--	--	--
MAY									
10...	13	3.3	3.9	.3	2.5	58	48	5.2	1.5
JUN									
08...	10	1.2	1.6	.1	1.0	26	21	4.9	.0
JUL									
09...	6.0	1.0	1.6	.2	1.4	24	20	3.7	1.9
29...	--	--	--	--	--	--	--	--	--
SEP									
07...	7.8	1.6	3.1	.3	1.3	32	26	5.9	.9

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)
OCT								
24...	--	--	--	--	--	--	--	--
MAY								
10...	.2	11	70	.10	62.9	.07	30	500
JUN								
08...	.1	8.8	41	.06	41.7	--	30	160
JUL								
09...	.1	9.3	37	.05	13.0	--	0	200
29...	--	--	--	--	--	--	--	--
SEP								
07...	.1	10	47	.06	5.08	.01	6	160

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT					
24...	1535	.5	65	4	.70
MAY					
10...	1410	7.0	333	27	24
JUN					
08...	1500	10.0	377	20	20
JUL					
09...	0915	13.0	130	24	8.4
29...	1250	16.0	48	6	.78
SEP					
07...	1600	16.5	40	17	1.8

06637750 ROCK CREEK ABOVE ROCK CREEK RESERVOIR, WY

LOCATION.--Lat 42°32'59", long 108°46'26", in NW¼NW¼ sec.27, T.30 N., R.100 W., Fremont County, Hydrologic Unit 10180006, Shoshone National Forest, on left bank 200 ft (61 m) upstream from high-water line of Rock Creek Reservoir, 2.7 mi (4.3 km) downstream from Little Rock Creek, and 4.3 mi (6.9 km) northwest of Atlantic City.

DRAINAGE AREA.--9.2 mi² (23.8 km²), approximately.

PERIOD OF RECORD.--May 1962 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 8,330 ft (2,539 m), from topographic map.

REMARKS.--Records good except those for winter period and period of no gage-height record, Nov. 28 to Jan. 14, which are poor. No diversions above station.

AVERAGE DISCHARGE.--14 years, 8.94 ft³/s (0.253 m³/s), 6,480 acre-ft/yr (7.99 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 214 ft³/s (6.06 m³/s) June 9, 1965, gage height, 7.26 ft (2.213 m); maximum gage height, 8.54 ft (2.603 m) Apr. 22, 1965 (backwater from ice); minimum daily discharge, 0.5 ft³/s (0.014 m³/s) Jan. 12-14, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 70 ft³/s (1.98 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 22	0200	*86	2.44	6.48	1.975

Minimum daily discharge, 0.80 ft³/s (0.023 m³/s) Mar. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.2	2.3	.96	1.1	1.2	1.1	4.2	45	9.8	22	2.2
2	2.2	2.2	2.5	.94	1.1	1.1	1.2	5.5	45	10	10	2.1
3	2.2	2.4	2.6	.93	1.1	1.0	1.3	7.6	44	11	6.7	2.0
4	2.2	2.5	2.6	.91	1.0	1.0	1.4	10	42	8.9	4.9	2.1
5	2.2	2.3	2.7	.91	1.0	1.0	1.6	12	39	8.1	4.3	2.1
6	2.2	2.2	2.7	.91	.96	1.0	1.8	9.2	36	7.6	3.7	2.2
7	2.2	2.1	2.7	.90	1.0	1.0	1.7	9.0	34	7.2	3.2	2.2
8	2.5	2.0	2.8	.92	1.1	.97	1.7	11	31	6.6	3.2	2.0
9	2.7	1.9	2.9	.93	1.1	.92	1.8	15	28	6.1	3.1	2.0
10	2.8	1.8	2.9	.93	1.2	.84	1.9	17	26	5.7	3.0	1.9
11	2.8	1.7	2.7	.94	1.2	.81	2.1	22	26	5.5	3.0	1.8
12	2.7	1.7	2.4	.95	1.2	.80	2.4	21	24	5.4	2.8	1.9
13	2.7	1.8	2.1	.95	1.3	.82	2.2	23	25	5.1	2.8	1.9
14	2.6	1.8	1.8	.97	1.3	.86	2.3	28	23	4.8	2.7	1.8
15	2.6	1.8	1.5	.98	1.4	.90	2.3	28	22	4.6	2.6	1.8
16	2.7	1.7	1.3	1.0	1.5	.98	2.2	25	20	4.5	2.6	1.8
17	2.7	1.6	1.2	1.1	1.5	1.0	2.1	29	20	4.3	2.4	1.8
18	2.8	1.6	1.1	1.1	1.5	1.0	2.1	38	26	4.6	2.4	1.7
19	2.4	1.6	1.1	1.1	1.5	.97	2.0	42	22	4.2	2.6	1.9
20	2.4	1.5	1.1	1.1	1.4	.94	2.0	45	19	4.1	2.4	2.0
21	2.4	1.5	1.0	1.1	1.4	.97	2.7	49	17	3.9	2.4	1.9
22	2.3	1.6	1.0	1.0	1.3	1.0	3.1	72	20	3.6	2.3	1.8
23	2.2	1.6	1.0	1.0	1.3	1.1	2.9	57	19	3.5	2.2	1.8
24	1.9	1.6	1.0	1.0	1.3	1.1	3.0	54	15	3.4	2.3	1.8
25	2.0	1.7	1.0	.98	1.3	1.1	3.7	50	14	3.5	2.3	2.0
26	2.0	1.7	1.1	.98	1.4	1.0	3.4	49	13	5.5	2.5	2.4
27	2.1	1.7	1.1	1.0	1.4	1.0	3.2	50	12	3.6	2.6	2.6
28	2.0	1.8	1.1	1.0	1.4	1.0	3.0	52	11	3.1	2.4	2.1
29	2.0	2.0	1.1	1.1	1.3	.98	3.1	50	11	3.0	2.2	1.9
30	2.0	2.2	1.0	1.1	---	1.0	3.4	47	10	3.6	2.3	1.8
31	2.2	---	.98	1.1	---	1.0	---	45	---	6.0	2.3	---
TOTAL	73.1	55.8	54.38	30.79	36.56	30.36	68.7	976.5	739	170.8	116.2	59.3
MEAN	2.36	1.86	1.75	.99	1.26	.98	2.29	31.5	24.6	5.51	3.75	1.98
MAX	2.8	2.5	2.9	1.1	1.5	1.2	3.7	72	45	11	22	2.6
MIN	1.9	1.5	.98	.90	.96	.80	1.1	4.2	10	3.0	2.2	1.7
AC-FT	145	111	108	61	73	60	136	1940	1470	339	230	118

CAL YR 1975 TOTAL 2929.09 MEAN 8.02 MAX 78 MIN .65 AC-FT 5810
WTR YR 1976 TOTAL 2411.49 MEAN 6.59 MAX 72 MIN .80 AC-FT 4780

06637910 ROCK CREEK AT ATLANTIC CITY, WY

LOCATION.--Lat 42°30'47", long 108°44'46", in NW¼SE¼ sec.2, T.29 N., R.100 W., Fremont County, Hydrologic Unit 10180006, on left bank 500 ft (152 m) downstream from Slate Creek and 1.4 mi (2.3 km) northwest of Atlantic City.

DRAINAGE AREA.--21.3 mi^2 (55.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1957 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 7,850 ft (2,393 m), from topographic map. Prior to Oct. 4, 1957, at site 35 ft (11 m) upstream at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Flow regulated by Rock Creek Reservoir 3.0 mi (4.8 km) upstream since October 1961, capacity, 2,800 acre-ft (3.45 hm^3).

AVERAGE DISCHARGE.--19 years, 11.8 ft^3/s (0.334 m^3/s), 8,550 acre-ft/yr (10.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 340 ft^3/s (9.63 m^3/s) June 10, 1965, gage height, 3.85 ft (1.173 m); maximum gage height, 4.30 ft (1.311 m) Sept. 28, 1971 (backwater from beaver dam); minimum daily discharge, 0.62 ft^3/s (0.018 m^3/s) Aug. 31, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52 ft^3/s (1.47 m^3/s) May 31, gage height, 2.73 ft (0.832 m); minimum daily, 2.3 ft^3/s (0.065 m^3/s) Nov. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.3	7.9	5.2	3.6	5.6	7.0	8.7	7.6	48	8.6	17	5.1
2	6.3	7.8	6.0	3.6	5.4	6.5	8.7	8.5	48	12	13	4.8
3	6.6	7.6	6.3	3.7	5.4	5.9	8.9	9.6	45	12	12	4.8
4	6.4	8.1	6.3	3.7	5.4	5.4	9.3	11	44	11	11	4.8
5	7.6	9.4	6.7	3.7	5.4	5.5	9.3	11	42	9.4	8.1	4.8
6	6.7	6.1	6.7	3.8	5.4	5.6	8.6	10	41	8.1	8.1	4.8
7	6.3	6.5	6.7	3.8	5.6	5.6	7.8	8.8	38	9.9	7.4	4.6
8	7.3	5.1	6.7	3.9	6.0	5.5	7.0	11	38	6.7	7.4	4.0
9	6.7	4.8	6.7	3.9	6.4	4.2	7.4	12	38	6.0	7.0	4.3
10	6.7	4.8	7.4	4.0	6.8	3.6	7.7	12	32	6.3	7.0	4.7
11	6.4	4.8	7.4	4.1	7.2	3.4	8.2	15	31	6.7	6.7	6.7
12	6.1	4.3	7.0	4.3	7.6	3.3	8.6	14	31	5.7	6.7	4.6
13	6.6	3.4	6.0	4.4	7.8	3.6	7.8	14	30	7.0	6.7	4.7
14	6.5	2.9	5.2	4.7	8.1	3.9	6.7	16	30	5.7	6.7	4.6
15	5.8	3.8	4.7	4.9	8.4	4.2	6.8	16	29	7.8	6.3	4.6
16	8.4	4.1	4.4	5.0	8.6	4.8	7.7	15	26	5.7	6.3	4.6
17	8.2	3.8	3.9	5.2	8.8	5.5	7.4	15	24	6.0	6.0	4.6
18	7.4	3.5	3.7	5.2	8.7	7.4	7.2	16	30	8.1	6.3	4.6
19	7.2	3.1	3.6	5.3	8.4	7.1	6.9	16	30	6.0	5.7	4.6
20	7.0	2.7	3.5	5.2	8.2	6.8	6.9	16	24	7.8	5.7	4.6
21	6.6	2.3	3.4	5.0	7.8	7.0	7.1	18	20	8.1	7.4	4.8
22	6.0	3.0	3.4	4.8	7.6	7.2	7.5	24	22	6.0	6.0	4.9
23	5.6	4.4	3.4	4.8	7.8	7.4	7.8	21	26	7.0	6.3	4.9
24	3.8	4.2	3.5	4.6	7.8	6.7	7.9	17	18	6.0	3.6	4.8
25	4.3	4.1	3.7	4.5	7.4	7.0	7.6	14	15	8.1	6.0	5.9
26	4.9	4.1	3.8	4.5	7.0	7.2	7.7	14	14	11	6.0	5.1
27	5.5	4.1	3.8	4.7	6.7	7.8	7.6	14	14	9.0	8.6	5.1
28	5.2	4.2	3.8	4.9	7.0	7.8	7.0	13	12	8.6	6.7	5.1
29	5.1	4.2	3.8	5.1	7.2	8.0	7.0	21	9.9	8.1	5.4	5.0
30	6.2	4.5	3.7	5.4	---	8.2	7.0	48	14	9.0	5.4	4.7
31	6.7	---	3.7	5.4	---	8.3	---	48	---	9.4	7.8	---
TOTAL	196.4	143.6	154.1	139.7	205.5	187.4	231.8	506.5	863.9	246.8	230.3	145.2
MEAN	6.34	4.79	4.97	4.51	7.09	6.05	7.73	16.3	28.8	7.96	7.43	4.84
MAX	8.4	9.4	7.4	5.4	8.8	8.3	9.3	48	48	12	17	6.7
MIN	3.8	2.3	3.4	3.6	5.4	3.3	6.7	7.6	9.9	5.7	3.6	4.0
AC-FT	390	285	306	277	408	372	460	1000	1710	490	457	288

CAL YR 1975 TOTAL 4239.2 MEAN 11.6 MAX 78 MIN 2.3 AC-FT 8410
WTR YR 1976 TOTAL 3251.2 MEAN 8.88 MAX 48 MIN 2.3 AC-FT 6450

06637910 ROCK CREEK AT ATLANTIC CITY, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957 to September 1976 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: June to September 1957, May to September 1958, May to September 1959, April 1960 to September 1976 (discontinued).
SUSPENDED SEDIMENT DISCHARGE: June 1957 to September 1976 (discontinued).

REMARKS.--Flow affected by ice Oct. 25-28, 30, Nov. 18 to Dec. 1, 13-22, 24, 26-31, Jan. 2-3, 5, 7-10, 13-16, 18, 24, Feb. 4, Mar. 13, 20, 26, 29-30.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.0°C July 29, 1961; minimum, 0.0°C on many days during winter period.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 7,400 mg/L June 10, 1965; minimum daily mean, not determined.
SEDIMENT LOADS: Maximum daily, 2,900 tons (2,630 tonnes) June 16, 1963; minimum daily, 0.01 ton (0.01 tonne) Jan. 13, 1969, Nov. 21, 1975.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 20.0°C July 9, 10; minimum, not determined.
SEDIMENT CONCENTRATIONS: Maximum daily mean, 500 mg/L Oct. 22; minimum daily mean, 2 mg/L on several days during year.
SEDIMENT LOADS: Maximum daily, 15 tons (14 tonnes) June 4; minimum daily, 0.01 ton (0.01 tonne) Nov. 21.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.5	6.0	1.5	---	---	---	6.0	12.0	---	18.5	13.5	16.0
2	10.0	6.5	2.5	1.0	1.5	---	---	11.0	---	13.5	11.0	7.5
3	5.0	6.0	4.5	1.5	---	---	7.0	7.5	11.5	16.5	12.5	---
4	12.5	6.0	3.5	---	3.0	---	6.5	9.0	12.5	16.0	14.5	12.5
5	12.0	5.5	3.5	1.5	---	---	---	7.5	12.5	14.0	16.5	13.5
6	12.0	6.0	4.0	---	3.5	---	4.5	7.0	12.0	16.0	17.0	11.0
7	9.5	4.0	3.0	1.5	---	---	5.0	7.0	12.5	15.5	16.5	10.0
8	8.0	3.0	3.0	1.5	---	---	6.5	5.5	13.0	19.0	16.0	8.0
9	9.0	2.5	3.5	1.0	---	---	6.0	8.5	16.5	20.0	12.0	10.0
10	9.5	2.0	3.0	1.0	---	---	6.5	2.5	16.0	20.0	11.5	10.0
11	10.5	1.0	2.0	---	---	---	7.0	---	13.5	19.5	11.5	11.0
12	11.0	1.5	2.0	1.5	---	---	6.0	---	11.0	17.0	11.0	11.0
13	10.0	2.0	1.0	2.0	---	1.0	5.5	9.0	9.0	15.5	11.5	12.5
14	6.0	3.5	0.5	2.5	---	---	7.5	7.5	---	18.5	12.5	13.0
15	5.5	4.0	1.5	1.0	---	1.5	8.0	4.5	11.0	18.0	13.5	10.0
16	6.0	5.0	1.0	3.0	---	1.0	4.5	7.0	11.0	18.5	12.5	11.0
17	7.5	4.5	1.0	---	---	---	4.0	7.5	12.5	16.5	12.5	11.5
18	6.5	2.5	1.5	1.5	---	1.5	6.5	9.5	11.5	14.5	16.0	11.0
19	7.5	2.0	3.0	---	---	2.5	6.0	11.0	12.0	17.5	17.5	8.5
20	7.0	1.0	3.5	---	---	---	5.5	10.5	12.0	11.5	11.0	11.0
21	5.0	1.5	4.0	---	---	---	7.0	10.0	12.5	16.0	10.5	11.5
22	4.0	2.5	3.5	---	---	1.0	6.5	6.5	12.0	16.5	12.0	11.0
23	5.5	3.0	1.5	1.5	---	---	10.0	7.0	14.5	15.0	17.0	10.0
24	3.5	2.5	2.5	2.5	3.5	---	8.5	9.0	15.0	19.5	17.5	9.5
25	4.0	1.0	---	---	---	1.5	7.5	10.5	13.5	17.5	16.5	8.5
26	4.5	0.5	3.0	---	---	---	7.0	11.0	14.0	16.0	14.0	7.0
27	3.0	---	2.5	---	3.5	1.5	8.5	10.5	16.0	14.5	14.0	7.5
28	3.5	0.5	3.5	---	4.0	---	9.0	11.0	17.0	13.0	14.5	8.0
29	4.5	0.5	3.0	---	---	3.0	7.5	8.0	16.0	16.0	15.5	12.0
30	3.5	0.5	4.0	3.0	---	3.5	11.5	---	16.5	13.0	15.0	12.0
31	4.0	---	0.5	1.0	---	---	---	---	---	15.5	10.0	---
MONTH	7.0	3.0	2.5	---	---	---	7.0	8.5	13.0	16.5	14.0	10.5
YEAR	MAX	20.0	MIN	0.5	MEAN	8.5						

06637910 ROCK CREEK AT ATLANTIC CITY, WY--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER			NOVEMBER			DECEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	6.3	13	.22	7.9	35	.75	5.2	9	.13
2	6.3	9	.15	7.8	11	.23	6.0	12	.19
3	6.6	24	.43	7.6	12	.25	6.3	23	.39
4	6.4	36	.62	8.1	13	.28	6.3	19	.32
5	7.6	15	.31	9.4	12	.30	6.7	31	.56
6	6.7	3	.05	6.1	18	.30	6.7	38	.69
7	6.3	16	.27	6.5	13	.23	6.7	40	.72
8	7.3	18	.35	5.1	81	1.1	6.7	46	.83
9	6.7	53	.96	4.8	32	.41	6.7	12	.22
10	6.7	130	2.4	4.8	33	.43	7.4	15	.30
11	6.4	11	.19	4.8	7	.09	7.4	18	.36
12	6.1	4	.07	4.3	33	.38	7.0	22	.42
13	6.6	9	.16	3.4	7	.06	6.0	51	.83
14	6.5	8	.14	2.9	5	.04	5.2	41	.58
15	5.8	11	.17	3.8	20	.21	4.7	34	.43
16	8.4	2	.05	4.1	9	.10	4.4	23	.27
17	8.2	3	.07	3.8	29	.30	3.9	27	.28
18	7.4	2	.04	3.5	11	.10	3.7	42	.42
19	7.2	3	.06	3.1	3	.03	3.6	19	.18
20	7.0	3	.06	2.7	23	.17	3.5	17	.16
21	6.6	31	.55	2.3	2	.01	3.4	41	.38
22	6.0	500	8.1	3.0	3	.02	3.4	16	.15
23	5.6	8	.12	4.4	3	.04	3.4	17	.16
24	3.8	18	.18	4.2	2	.02	3.5	20	.19
25	4.3	5	.06	4.1	40	.44	3.7	5	.05
26	4.9	108	1.4	4.1	12	.13	3.8	49	.50
27	5.5	17	.25	4.1	16	.18	3.8	56	.57
28	5.2	3	.04	4.2	17	.19	3.8	15	.15
29	5.1	2	.03	4.2	6	.07	3.8	16	.16
30	6.2	53	.89	4.5	10	.12	3.7	7	.07
31	6.7	36	.65	---	---	---	3.7	9	.09
TOTAL	196.4	---	19.04	143.6	---	6.98	154.1	---	10.75

	JANUARY			FEBRUARY			MARCH		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	3.6	9	.09	5.6	10	.15	7.0	30	.57
2	3.6	5	.05	5.4	20	.29	6.5	28	.49
3	3.7	4	.04	5.4	18	.26	5.9	26	.41
4	3.7	6	.06	5.4	18	.26	5.4	23	.34
5	3.7	8	.08	5.4	20	.29	5.5	21	.31
6	3.8	12	.12	5.4	22	.32	5.6	19	.29
7	3.8	19	.19	5.6	24	.36	5.6	17	.26
8	3.9	48	.51	6.0	26	.42	5.5	14	.21
9	3.9	13	.14	6.4	27	.47	4.2	12	.14
10	4.0	41	.44	6.8	27	.50	3.6	11	.11
11	4.1	10	.11	7.2	27	.52	3.4	8	.07
12	4.3	10	.12	7.6	27	.55	3.3	6	.05
13	4.4	13	.15	7.8	28	.59	3.6	15	.15
14	4.7	13	.16	8.1	28	.61	3.9	14	.15
15	4.9	19	.25	8.4	28	.64	4.2	14	.16
16	5.0	22	.30	8.6	28	.65	4.8	19	.25
17	5.2	8	.11	8.8	28	.67	5.5	23	.34
18	5.2	14	.20	8.7	28	.66	7.4	22	.44
19	5.3	16	.23	8.4	29	.66	7.1	38	.73
20	5.2	12	.17	8.2	30	.66	6.8	29	.53
21	5.0	10	.14	7.8	31	.65	7.0	18	.34
22	4.8	9	.12	7.6	32	.66	7.2	12	.23
23	4.8	8	.10	7.8	33	.69	7.4	12	.24
24	4.6	12	.15	7.8	50	1.1	6.7	11	.20
25	4.5	15	.18	7.4	31	.62	7.0	10	.19
26	4.5	15	.18	7.0	30	.57	7.2	9	.17
27	4.7	15	.19	6.7	30	.54	7.8	8	.17
28	4.9	15	.20	7.0	32	.60	7.8	8	.17
29	5.1	15	.21	7.2	32	.62	8.0	13	.28
30	5.4	14	.20	---	---	---	8.2	7	.15
31	5.4	7	.10	---	---	---	8.3	7	.16
TOTAL	139.7	---	5.29	205.5	---	15.58	187.4	---	8.30

06637910 ROCK CREEK AT ATLANTIC CITY, WY--Continued

SUSPENDED-SEDIMENT DISCHARGE (TONS/DAY), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	APRIL			MAY			JUNE		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8.7	7	.16	7.6	7	.14	48	19	2.5
2	8.7	12	.28	8.5	33	.76	48	19	2.5
3	8.9	12	.29	9.6	13	.34	45	98	12
4	9.3	10	.25	11	12	.36	44	125	15
5	9.3	9	.23	11	11	.33	42	48	5.4
6	8.6	8	.19	10	10	.27	41	94	10
7	7.8	7	.15	8.8	37	.88	38	75	7.7
8	7.0	12	.23	11	22	.65	38	55	5.6
9	7.4	8	.16	12	10	.32	38	35	3.6
10	7.7	15	.31	12	8	.26	32	25	2.2
11	8.2	7	.15	15	10	.41	31	21	1.8
12	8.6	8	.19	14	13	.49	31	19	1.6
13	7.8	12	.25	14	16	.60	30	20	1.6
14	6.7	4	.07	16	16	.69	30	19	1.5
15	6.8	9	.17	16	10	.43	29	16	1.3
16	7.7	4	.08	15	15	.61	26	38	2.7
17	7.4	8	.16	15	10	.41	24	33	2.1
18	7.2	7	.14	16	15	.65	30	27	2.2
19	6.9	22	.41	16	26	1.1	30	23	1.9
20	6.9	6	.11	16	19	.82	24	23	1.5
21	7.1	5	.10	18	19	.92	20	28	1.5
22	7.5	4	.08	24	102	6.6	22	103	6.1
23	7.8	5	.11	21	30	1.7	26	23	1.6
24	7.9	6	.13	17	18	.83	18	18	.87
25	7.6	4	.08	14	15	.57	15	143	5.8
26	7.7	7	.15	14	15	.57	14	41	1.5
27	7.6	7	.14	14	13	.49	14	22	.83
28	7.0	6	.11	13	48	1.7	12	11	.36
29	7.0	15	.28	21	35	2.1	9.9	17	.45
30	7.0	15	.28	48	19	2.5	14	97	2.9
31	---	---	---	48	18	2.3	---	---	---
TOTAL	231.8	---	5.44	506.5	---	30.80	863.9	---	106.61

	JULY			AUGUST			SEPTEMBER		
DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	8.6	41	.95	17	53	2.4	5.1	25	.34
2	12	103	3.3	13	108	3.8	4.8	28	.36
3	12	40	1.3	12	100	3.4	4.8	20	.26
4	11	25	.79	11	42	1.3	4.8	9	.12
5	9.4	33	.84	8.1	23	.50	4.8	10	.13
6	8.1	48	1.0	8.1	18	.39	4.8	71	.92
7	9.9	82	2.6	7.4	31	.62	4.6	9	.11
8	6.7	24	.43	7.4	24	.48	4.0	6	.06
9	6.0	7	.11	7.0	56	1.1	4.3	18	.23
10	6.3	4	.07	7.0	26	.49	4.7	4	.05
11	6.7	13	.24	6.7	22	.40	6.7	10	.18
12	5.7	11	.17	6.7	23	.42	4.6	14	.17
13	7.0	12	.23	6.7	28	.51	4.7	7	.09
14	5.7	10	.15	6.7	20	.36	4.6	6	.07
15	7.8	7	.15	6.3	21	.36	4.6	8	.10
16	5.7	2	.03	6.3	25	.43	4.6	5	.06
17	6.0	21	.34	6.0	26	.42	4.6	18	.22
18	8.1	23	.41	6.3	22	.37	4.6	21	.26
19	6.0	23	.37	5.7	22	.34	4.6	16	.20
20	7.8	7	.15	5.7	24	.37	4.6	8	.10
21	8.1	19	.50	7.4	32	.64	4.8	4	.05
22	6.0	41	.73	6.0	23	.37	4.9	4	.05
23	7.0	25	.47	6.3	20	.34	4.9	3	.04
24	6.0	10	.16	3.6	15	.15	4.8	2	.03
25	8.1	5	.11	6.0	13	.21	5.9	2	.03
26	11	51	1.6	6.0	23	.37	5.1	8	.11
27	9.0	75	1.8	8.6	56	1.4	5.1	8	.11
28	8.6	18	.38	6.7	45	.81	5.1	48	.66
29	8.1	28	.56	5.4	40	.58	5.0	10	.14
30	9.0	58	1.4	5.4	30	.44	4.7	5	.06
31	9.4	38	.96	7.8	63	1.6	---	---	---
TOTAL	246.8	---	22.30	230.3	---	25.37	145.2	---	5.31
YEAR	3251.2		261.77						

06638090 SWEETWATER RIVER NEAR SWEETWATER STATION, WY

LOCATION.--Lat 42°30'17", long 108°14'59", in SW¼SE¼NE¼ sec.12, T.29 N., R.96 W., Fremont County, Hydrologic Unit 10180006, on left bank 1.4 mi (2.3 km) downstream from Alkali Creek and 4.4 mi (7.1 km) southwest of Sweetwater Station.

DRAINAGE AREA.--849 mi^2 (2,199 km^2).

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,590 ft (2,009 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Transbasin diversion by Continental Divide ditch diverts water from Little Sandy Creek to land along Lander Creek (tributary to Sweetwater River). A transbasin diversion diverts water from Sweetwater River into Pacific Creek (tributary to Big Sandy River in Green River basin).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,950 ft^3/s (83.5 m^3/s) Apr. 27, 1974, gage height, 9.78 ft (2.981 m), from floodmark; minimum daily, 16 ft^3/s (0.45 m^3/s) Feb. 7, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 922 ft^3/s (26.1 m^3/s) May 24, gage height, 5.80 ft (1.768 m); minimum daily, 17 ft^3/s (0.48 m^3/s) Jan. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	58	28	18	25	38	69	262	588	215	137	25
2	30	49	28	18	25	38	77	308	556	225	173	24
3	29	51	28	18	24	38	83	395	556	230	186	22
4	30	60	28	17	24	37	87	488	562	210	158	21
5	31	59	28	18	24	36	90	572	566	189	117	20
6	30	58	29	18	24	37	88	624	552	173	88	19
7	29	54	30	18	26	40	86	634	530	160	72	20
8	31	49	31	18	29	42	100	562	516	150	62	21
9	34	39	31	19	30	44	115	620	484	138	54	22
10	38	34	31	19	31	44	119	610	459	129	49	21
11	42	27	30	19	31	43	136	602	428	121	48	21
12	42	28	29	19	30	42	148	662	415	117	46	21
13	49	32	27	19	29	41	153	648	426	109	43	22
14	51	35	24	19	30	40	155	566	426	105	42	23
15	51	37	22	19	31	40	173	600	424	101	40	23
16	52	39	20	19	32	41	230	614	360	92	38	23
17	51	37	19	19	33	43	199	558	334	86	37	22
18	51	35	20	19	33	46	184	518	329	82	37	21
19	49	33	21	20	33	47	184	544	363	82	36	21
20	48	32	22	20	32	45	191	576	365	84	33	22
21	48	31	22	20	31	45	199	600	298	86	32	22
22	46	32	22	20	32	49	217	672	282	81	32	22
23	47	33	22	20	34	50	298	842	339	75	30	21
24	42	34	22	19	35	49	324	898	372	65	29	21
25	39	34	21	19	37	48	341	798	298	62	27	21
26	39	32	20	19	38	48	363	682	254	65	26	22
27	44	33	20	20	39	48	327	610	223	84	26	24
28	52	32	20	20	39	47	302	572	210	64	27	25
29	56	31	19	21	39	48	290	578	202	59	31	28
30	49	29	19	23	---	50	264	608	204	58	29	28
31	59	---	18	25	---	59	---	626	---	56	27	---
TOTAL	1319	1167	751	599	900	1363	5592	18449	11921	3553	1812	668
MEAN	42.5	38.9	24.2	19.3	31.0	44.0	186	595	397	115	58.5	22.3
MAX	59	60	31	25	39	59	363	898	588	230	186	28
MIN	29	27	18	17	24	36	69	262	202	56	26	19
AC-FT	2620	2310	1490	1190	1790	2700	11090	36590	23650	7050	3590	1320

CAL YR 1975 TOTAL 56013 MEAN 153 MAX 920 MIN 16 AC-FT 111100
WTR YR 1976 TOTAL 48094 MEAN 131 MAX 898 MIN 17 AC-FT 95390

06638300 WEST FORK CROOKS CREEK NEAR JEFFREY CITY, WY

LOCATION.--Lat 42°20'56", long 107°51'45", in SE¼SW¼ sec.31, T.28 N., R.92 W., Fremont County, Hydrologic Unit 10180006, at culvert on dirt road and 10.1 mi (16.3 km) south of Jeffrey City.

DRAINAGE AREA.--11.6 mi^2 (30.0 km^2).

PERIOD OF RECORD.--April to September 1976.

REMARKS.--Peak-flow information also collected at this site.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)
MAY												
14...	1400	1.3	360	14.5	2	130	0	44	4.3	34	1.3	1.6
JUN												
09...	1445	.95	325	12.5	2	--	--	--	--	--	--	--
JUL												
01...	1200	E1.5	315	15.0	1	110	0	38	4.2	24	1.0	1.8
AUG												
02...	1350	E1.0	305	11.0	3	110	0	38	3.9	27	1.1	1.7
SEP												
16...	1300	.96	380	13.0	1	110	0	38	4.2	34	1.4	1.7

E Estimate.

DATE	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)
MAY												
14...	196	161	35	4.1	.2	20	240	.33	.84	--	30	50
JUN												
09...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
01...	158	130	27	4.2	.2	21	198	.27	.80	--	10	50
AUG												
02...	171	140	28	4.3	.2	19	207	.28	.56	.01	30	220
SEP												
16...	180	148	31	3.5	.2	17	218	.30	.57	.00	30	40

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
APR					
10...	1400	7.0	1.0	8	.02
MAY					
14...	1400	14.5	1.3	8	.03
JUN					
09...	1445	12.5	.95	18	.05
JUL					
01...	1200	15.0	E1.5	7	.03
AUG					
02...	1350	11.0	E1.0	9	.02
SEP					
16...	1300	13.0	.96	12	.03

E Estimate.

06639000 SWEETWATER RIVER NEAR ALCOVA, WY

LOCATION.--Lat 42°27'28", long 107°11'45", in SW¼NE¼ sec.25, T.29 N., R.87 W., Natrona County, Hydrologic Unit 10180006, on left bank at Dumbell Ranch, 1.0 mi (1.6 km) downstream from Schounmaker ditch diversion dam, 13 mi (21 km) upstream from high-water line of Pathfinder Reservoir at elevation 5,850 ft (1,783 m), and 25 mi (40 km) southwest of Alcova.

DRAINAGE AREA.--2,327 mi^2 (6,027 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1913 to September 1924, October 1938 to current year (no winter records during 1974 and 1975). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1921, 1923-24. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 5,920 ft (1,804 m), from topographic map. Aug. 28, 1913, to Sept. 30, 1924, nonrecording gages at site 0.4 mi (0.6 km) upstream at different datums.

REMARKS.--Records good except those for winter period, which are poor. Several small reservoirs above station, combined capacity, about 5,000 acre-ft (6.16 hm^3), for irrigation. Diversions for irrigation of about 24,000 acres (97.1 km^2) above station.

COOPERATION.--Ten discharge measurements were made by the Bureau of Reclamation.

AVERAGE DISCHARGE.--47 years (water years 1914-24, 1939-73, 1976), 126 ft^3/s (3.568 m^3/s), 91,290 acre-ft/yr (113 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 4,290 ft^3/s (121 m^3/s) Apr. 13, 1924, gage height, 8.36 ft (2.548 m), site and datum then in use; minimum daily, 0.5 ft^3/s (0.014 m^3/s) July 30 to Aug. 12, 1940.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 715 ft^3/s (20.2 m^3/s) May 28, gage height, 5.25 ft (1.600 m); minimum daily, 17 ft^3/s (0.48 m^3/s) Sept. 17, 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	70	47	36	54	80	80	272	508	174	95	23
2	53	73	58	33	57	72	86	255	505	162	97	23
3	53	77	58	34	53	65	89	242	502	152	104	23
4	52	82	60	35	48	56	91	234	471	152	116	23
5	52	82	58	36	44	59	91	228	450	158	154	23
6	52	80	57	35	38	62	100	246	442	160	176	22
7	50	82	58	34	44	66	116	289	440	147	168	21
8	48	86	59	34	50	74	137	324	437	130	147	20
9	50	79	63	36	54	82	160	376	422	122	131	20
10	50	67	62	38	56	86	145	390	402	111	116	19
11	50	58	61	39	55	80	131	381	388	104	102	18
12	50	49	57	39	55	64	139	407	361	93	97	18
13	52	43	57	40	59	54	145	407	347	80	88	18
14	55	51	46	40	58	52	152	424	349	73	82	18
15	59	68	37	43	56	55	164	461	400	68	73	18
16	61	75	39	46	56	69	170	468	429	68	64	18
17	66	70	33	50	55	79	178	440	424	66	61	17
18	68	62	36	52	54	86	192	458	385	66	55	18
19	71	57	36	49	53	93	212	463	347	66	53	19
20	71	40	36	47	53	87	212	437	329	77	50	18
21	71	42	37	49	48	74	200	409	317	66	48	18
22	71	45	37	52	52	75	198	424	300	73	46	18
23	71	48	37	51	58	80	198	484	291	73	45	18
24	68	50	37	50	62	97	200	551	282	71	44	18
25	64	51	40	47	66	88	212	588	267	68	42	19
26	69	47	38	45	71	86	244	634	274	66	33	19
27	66	51	37	47	69	86	259	681	270	66	25	19
28	73	55	36	49	70	86	278	699	240	68	24	18
29	70	48	36	53	72	84	293	631	218	66	24	17
30	71	41	36	56	---	88	284	551	196	71	23	17
31	70	---	36	55	---	84	---	513	---	88	23	---
TOTAL	1879	1829	1425	1350	1620	2349	5156	13367	10993	3005	2406	578
MEAN	60.6	61.0	46.0	43.5	55.9	75.8	172	431	366	96.9	77.6	19.3
MAX	73	86	63	56	72	97	293	699	508	174	176	23
MIN	48	40	33	33	38	52	80	228	196	66	23	17
AC-FT	3730	3630	2830	2680	3210	4660	10230	26510	21800	5960	4770	1150

WTR YR 1976 TOTAL 45957 MEAN 126 MAX 699 MIN 17 AC-FT 91160

06639000 SWEETWATER RIVER NEAR ALCOVA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT								
08...	1115	50	6.0	2	10.1	39	160	12
NOV								
13...	1130	A43	2.0	5	10.6	85	150	2
DEC								
04...	1525	A60	.0	--	--	--	160	21
11...	1130	A61	1.5	8	10.8	20	160	29
JAN								
14...	1430	A40	.5	2	11.6	86	170	6
FEB								
12...	1130	A55	.0	1	10.4	86	140	9
25...	1430	A66	.5	--	--	--	130	0
MAR								
13...	1100	A54	.0	2	11.6	85	160	21
APR								
15...	1345	168	9.0	50	9.4	65	120	13
MAY								
12...	1100	407	10.5	45	8.5	B200	80	0
JUN								
17...	1115	432	11.0	20	9.3	40	84	2
JUL								
15...	1200	70	20.0	1	8.3	826	130	0
AUG								
11...	0930	106	16.0	5	7.3	33	110	0
SEP								
08...	1100	21	11.0	1	8.7	37	150	0

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
OCT									
08...	47	9.8	39	1.4	5.6	180	0	148	73
NOV									
13...	44	9.7	38	1.4	4.9	180	0	148	65
DEC									
04...	48	9.0	35	1.2	5.4	170	0	139	71
11...	48	8.5	33	1.2	4.4	160	0	131	63
JAN									
14...	52	11	43	1.4	5.8	200	0	164	77
FEB									
12...	41	8.5	34	1.3	6.3	160	0	131	60
25...	39	7.5	33	1.3	4.9	160	0	131	60
MAR									
13...	47	9.2	39	1.4	5.8	170	0	139	77
APR									
15...	36	7.2	43	1.7	5.4	130	0	107	81
MAY									
12...	25	4.5	13	.6	4.2	110	0	90	15
JUN									
17...	25	5.2	19	.9	3.5	100	0	82	27
JUL									
15...	38	8.5	33	1.3	5.4	160	0	131	49
AUG									
11...	33	6.9	26	1.1	4.7	140	0	115	40
SEP									
08...	43	10	47	1.7	7.0	190	0	156	77

06639000 SWEETWATER RIVER NEAR ALCOVA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
OCT								
08...	19	.4	24	305	.41	41.2	.00	.01
NOV								
13...	20	.4	30	301	.41	34.9	.00	.03
DEC								
04...	18	.4	29	300	.41	48.6	.00	.02
11...	17	.4	26	282	.38	46.4	.05	.03
JAN								
14...	22	.5	32	341	.46	36.8	.02	.00
FEB								
12...	16	.3	24	269	.37	39.9	.02	.01
25...	16	.3	26	263	.36	46.9	.00	.01
MAR								
13...	21	.4	28	312	.42	45.5	.00	.01
APR								
15...	16	.3	17	270	.37	122	.25	.04
MAY								
12...	5.8	.2	14	134	.18	147	.07	.13
JUN								
17...	8.9	.3	16	156	.21	182	.07	.08
JUL								
15...	13	.4	19	247	.34	46.7	.00	.01
AUG								
11...	11	.4	21	212	.29	60.7	.47	.05
SEP								
08...	23	.5	25	326	.44	18.5	.16	.00

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT					
08...	1055	6.0	48	12	1.6
NOV					
13...	1130	2.0	A43	24	2.8
DEC					
11...	1130	1.5	A61	82	14
JAN					
14...	1300	.0	A40	22	2.4
14...	1430	.5	A40	34	3.7
MAR					
12...	1130	.0	A64	15	2.6
13...	1100	.0	A54	16	2.3
18...	1430	11.5	77	44	9.1
APR					
15...	1345	9.0	166	138	62
20...	1230	9.0	214	102	59
MAY					
12...	1100	10.5	407	240	264
JUN					
17...	1115	11.0	429	58	67
JUL					
15...	1200	20.0	70	13	2.5
AUG					
11...	0930	16.0	104	30	8.4
SEP					
08...	1100	11.0	21	4	.23

A Daily mean discharge.

06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WY

LOCATION.--Lat 42°28'06", long 106°51'12", in NW¼SW¼ sec.24, T.29 N., R.84 W., Natrona County, Hydrologic Unit 10180003, in gatehouse near left end of dam on North Platte River and 9.0 mi (14.5 km) southwest of Alcova.

DRAINAGE AREA (REVISED).--10,711 mi^2 (27,741 km^2), of which 700 mi^2 (1,813 km^2) is probably noncontributing. The 3,959 mi^2 (10,254 km^2) in Great Divide Basin is not included.

RESERVOIR-CONTENTS RECORD

PERIOD OF RECORD.--January 1909 to current year. Monthend figures only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,678.1 ft (1,730.68 m) above mean sea level; gage readings have been reduced to elevations above mean sea level. Prior to Oct. 1, 1950, sea level elevations were referred to Bureau of Reclamation datum which was 1.9 ft (0.58 m) lower than mean sea level. Prior to Apr. 12, 1950, nonrecording gages near present site at datum 1.9 ft (0.58 m) lower.

REMARKS.--Reservoir is formed by masonry dam. Storage began in April 1909. Capacity, 1,016,000 acre-ft (1,250 hm^3) between elevations 5,668.1 ft (1,727.64 m), north outlet trashrack sill, and 5,850.1 ft (1,783.11 m), crest of spillway. No dead storage. Figures given herein represent total contents. Water is used to irrigate lands in Wyoming and Nebraska under the North Platte project. Since December 1960, the water has been diverted directly through a tunnel to Fremont Canyon Powerplant, bypassing a section of river channel immediately below Pathfinder Dam.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,182,000 acre-ft (1,460 hm^3) June 25-27, 1917, elevation 5,858.86 ft (1,785.781 m), present datum; no storage at times during 1909-12, 1931, 1958-59.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 902,000 acre-ft (1,110 hm^3) May 19, elevation, 5,844.71 ft (1,781.468 m); minimum daily, 530,000 acre-ft (653 hm^3) Sept. 30, elevation, 5,822.44 ft (1,774.680 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

5,822	524,000	5,835	720,000
5,825	564,000	5,840	810,000
5,830	638,000	5,845	908,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	696000	725000	724000	771000	820000	849000	871000	881000	896000	871000	760000	617000
2	696000	725000	724000	772000	821000	850000	872000	882000	896000	869000	753000	614000
3	696000	724000	726000	774000	822000	851000	873000	883000	896000	866000	748000	612000
4	696000	724000	727000	775000	824000	852000	875000	884000	896000	864000	740000	609000
5	696000	725000	727000	778000	827000	853000	876000	885000	895000	862000	733000	606000
6	697000	724000	728000	780000	826000	854000	876000	886000	894000	860000	728000	603000
7	698000	724000	729000	782000	827000	854000	877000	888000	894000	858000	720000	600000
8	698000	723000	730000	783000	829000	856000	877000	889000	894000	856000	714000	596000
9	698000	722000	732000	785000	829000	856000	877000	891000	894000	853000	709000	594000
10	699000	721000	734000	787000	830000	856000	876000	892000	893000	851000	702000	592000
11	700000	720000	734000	789000	830000	858000	876000	892000	892000	848000	696000	588000
12	702000	720000	737000	790000	831000	859000	876000	895000	890000	846000	689000	586000
13	703000	719000	737000	792000	832000	859000	877000	895000	890000	845000	683000	582000
14	704000	718000	739000	795000	833000	860000	876000	898000	889000	842000	676000	578000
15	705000	718000	739000	798000	834000	861000	875000	898000	889000	840000	669000	574000
16	706000	717000	740000	797000	835000	862000	876000	899000	887000	838000	664000	571000
17	707000	716000	742000	799000	836000	862000	875000	901000	887000	836000	663000	568000
18	708000	715000	744000	801000	837000	863000	875000	901000	886000	834000	659000	565000
19	711000	715000	745000	803000	838000	864000	873000	902000	885000	831000	657000	561000
20	712000	715000	747000	804000	839000	864000	873000	901000	883000	829000	654000	559000
21	714000	715000	749000	806000	840000	864000	872000	901000	882000	827000	652000	554000
22	714000	716000	752000	808000	841000	864000	872000	898000	882000	824000	648000	551000
23	716000	716000	753000	809000	842000	865000	871000	897000	881000	818000	644000	548000
24	719000	717000	756000	810000	842000	866000	872000	897000	880000	811000	641000	545000
25	720000	719000	757000	812000	843000	866000	872000	898000	878000	804000	638000	542000
26	720000	719000	758000	813000	844000	867000	874000	897000	877000	798000	636000	538000
27	722000	719000	760000	814000	846000	867000	875000	897000	876000	791000	633000	537000
28	723000	721000	762000	816000	846000	867000	877000	897000	875000	785000	629000	534000
29	724000	721000	765000	817000	847000	869000	878000	897000	873000	778000	625000	531000
30	725000	722000	766000	817000	---	869000	880000	895000	873000	772000	622000	530000
31	725000	---	769000	819000	---	871000	---	897000	---	765000	619000	---
MAX	725000	725000	769000	819000	847000	871000	880000	902000	896000	871000	760000	617000
MIN	696000	715000	724000	771000	820000	849000	871000	881000	873000	765000	619000	530000
(†)	5,835.32	5,835.16	5,837.80	5,840.50	5,841.98	5,843.16	5,843.63	5,844.48	5,843.26	5,837.60	5,828.80	5,822.44
(‡)	+29,000	-3,000	+47,000	+50,000	+28,000	+24,000	+9,000	+17,000	-24,000	-108,000	-146,000	-89,000

CAL YR 1975 MAX 960000 MIN 695000 ‡ -30000
WTR YR 1976 MAX 902000 MIN 530000 ‡-166000

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OR RECORD.--Water years 1972 to current year.

REMARKS.--Reservoir sampled at one site prior to July 1973 and at all sites thereafter. Samples are collected at the surface, the thermocline or midpoint if a well defined thermocline is not present, and at the bottom. Dissolved oxygen and temperature are measured at additional depths. Reservoir storage represents total storage at 2400 hours.

SAMPLE SITE 1.--Lat 42°28'05", long 106°51'16", in NE¼NE¼SE¼ sec.23, T.29 N., R.84 W., about 200 ft (61 m) upstream from dam.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	RESERVOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DISSOLVED OXYGEN (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
FEB., 1976 26...	844,000	6.2	SURFACE	1.0	11.5	318	.43	.27	--	.02	130	5.4
			75	2.0	11.6	309	.42	.25	--	.01	470	7.1
			150	3.0	4.2	337	.46	.25	--	.06	45	19
JULY 13...	845,000	9.3	SURFACE	19.5	8.3	303	.41	.04	.02	.02	3400	.7
			30	15.0	7.6	296	.40	.04	.04	.01	7100	1.4
			107	13.0	5.9	301	.41	.12	.01	.02	39	7.2
AUG. 04...	740,000	8.5	SURFACE	19.5	8.0	195	.27	.02	.00	.01	--	.3
			50	18.0	7.1	310	.42	.02	.00	.01	--	.3
			135	13.5	3.9	311	.42	.22	.05	.03	--	9.4
AUG. 17...	663,000	5.8	1.0	--	--	295	.40	.01	.00	.00	37000	.3
			40	--	--	300	.41	.01	.00	.00	240000	.2
			96	--	--	297	.40	.12	.04	.01	14000	.7
SEP. 02...	617,000	5.9	1.0	--	--	305	.41	.02	.00	.00	--	.5
			60	--	--	307	.42	.07	.00	.01	--	1.1
			123	--	--	311	.42	.23	.06	.04	--	14

PLATTE RIVER BASIN
06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WY--Continued
SAMPLE SITE L.--Continued
QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON

DATE	FEB 26,76	FEB 26,76	FEB 26,76	JUL 13,76	JUL 13,76
TIME	0900	0905	0910	1230	1240
DEPTH BELOW SURFACE (FT)	150	75	SURFACE	107	30
TOTAL CELLS/ML	45	470	130	39	7100
DIVERSITY: DIVISION	1.0	0.7	0.9	1.3	0.2
.CLASS	1.0	1.4	0.9	1.3	0.3
..ORDER	1.4	1.9	1.4	1.9	0.3
...FAMILY	1.9	1.9	1.6	2.3	0.3
....GENUS	1.9	2.0	1.8	2.3	0.5

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	5	12	16	4	*	0	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	14	12	--	-	--	-
....SELENASTRUM	--	-	16	4	21#	17	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	47	11	--	-	--	-	--	-
...PHACOTACEAE										
....PHACOTUS	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	5	12	240#	51	71#	56	11#	29	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-	*	0
..PENNALES										
...ACHNANTHACEAE										
....COCCONEIS	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	--	-	2	5	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	25#	56	--	-	*	0	9#	24	--	-
....FRAGILARIA	--	-	--	-	--	-	--	-	*	0
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	7	6	--	-	--	-
...NAVICULACEAE										
....NAVICULA	--	-	16	4	*	0	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	5	12	16	4	14	12	2	5	--	-
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	--	-	--	-	*	0
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....OCHROMONAS	--	-	130#	27	--	-	--	-	170	3
CYANOPHYTA (BLUE-GREEN ALGAE)										
.MYXOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	*	0	--	-	--	-
..OSCILLATORIALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	310	5
....APHANIZOMENON	--	-	--	-	--	-	11#	29	6500#	93
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	4	10	*	0
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...CERATIACEAE										
....CERATIUM	--	-	--	-	--	-	--	-	--	-
...PERIDINIACEAE										
....PERIDINIUM	5	12	*	0	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

PLATTE RIVER BASIN
06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WY--Continued
SAMPLE SITE 1.--Continued
QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON

DATE	JUL 13,76	AUG 17,76	AUG 17,76	AUG 17,76
TIME	1250	1340	1345	1350
DEPTH BELOW SURFACE (FT)	SURFACE	96	40	1.0
TOTAL CELLS/ML	3400	14000	240000	37000
DIVERSITY: DIVISION	0.9	0.2	0.0	0.1
.CLASS	0.9	0.2	0.0	0.1
..ORDER	0.9	0.2	0.0	0.1
...FAMILY	1.7	0.2	0.0	0.1
....GENUS	1.7	0.2	0.1	0.1

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	55	2	*	0	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	*	0	--	-	--	-	--	-
...PHACOTACEAE								
....PHACOTUS	--	-	*	0	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	270	2	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....COCCONEIS	--	-	--	-	--	-	*	0
...CYMBELLACEAE								
....CYMBELLA	*	0	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	*	0	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	41	2	--	-	--	-	--	-
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....OCHROMONAS	55	2	--	-	--	-	250	1
CYANOPHYTA (BLUE-GREEN ALGAE)								
.MYXOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	--	-	--	-
..OSCILLATORIALES								
...NOSTOCACEAE								
....ANABAENA	770#	23	--	-	4600	2	--	-
....APHANIZOMENON	--	-	13000#	98	230000#	99	37000#	100
...OSCILLATORIACEAE								
....OSCILLATORIA	2100#	61	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	340	11	--	-	--	-	--	-
...CRYPTOMONODACEAE								
....CRYPTOMONAS	*	0	--	-	--	-	--	-
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	*	0	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...CERATIACEAE								
....CERATIUM	--	-	--	-	*	0	--	-
...PERIDINIACEAE								
....PERIDINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WY--Continued

SAMPLE SITE 2.--Lat 42°20'58", long 106°54'38", in NW¼SW¼SE¼ sec.32, T.28 N., R.84 W., about 9 mi (14 km) upstream from dam in the North Platte River arm of reservoir.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	RESERVOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DISSOLVED OXYGEN (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
JULY, 1976												
13...	845,000	10.3	SURFACE	19.0	8.4	309	.42	.02	.01	.02	3100	1.2
			30	15.0	7.8	301	.41	.03	.03	.02	1600	.5
			87	13.0	6.3	310	.42	.10	.05	.02	1800	5.4
AUG.												
04...	740,000	7.8	SURFACE	19.0	7.7	314	.43	.02	.00	.01	--	.4
			40	18.0	6.1	315	.43	.04	.00	.01	--	.3
			75	15.0	4.8	319	.43	.14	.00	.02	--	.9
AUG.												
17...	663,000	4.7	1.0	--	--	316	.43	.02	.00	.00	46000	.3
			30	--	--	307	.42	.03	.00	.00	63000	.3
			69	--	--	308	.42	.11	.00	.01	29000	.9
SEP.												
01...	617,000	6.0	1.0	--	--	305	.41	.00	.00	.00	--	.2
			35	--	--	304	.41	.04	.00	.00	--	.5
			69	--	--	313	.43	.00	.02	.01	--	1.8

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JUL 13,76		JUL 13,76		JUL 13,76		AUG 17,76		AUG 17,76		AUG 17,76	
TIME	1105		1115		1120		1105		1110		1115	
DEPTH BELOW SURFACE (FT)	87		30		SURFACE		69		30		1.0	
TOTAL CELLS/ML	1800		1600		3100		29000		63000		46000	
DIVERSITY: DIVISION	0.0		1.0		0.5		0.1		0.0		0.1	
.CLASS	0.0		1.0		0.5		0.1		0.0		0.1	
..ORDER	0.3		1.1		0.5		0.1		0.0		0.1	
...FAMILY	0.4		1.1		1.4		0.1		0.0		0.7	
....GENUS	1.2		1.2		1.4		0.1		0.0			
ORGANISM	CELLS /ML	PERCENT	CELLS /ML	PERCENT	CELLS /ML	PERCENT	CELLS /ML	PERCENT	CELLS /ML	PERCENT	CELLS /ML	PERCENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	*	0	*	0	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	8	1	--	-	--	-	--	-	--	-
..VOLVOCALES												
...PHACOTACEAE												
....PHACOTUS	--	-	--	-	--	-	*	0	*	0	*	0
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	1300#	76	16	2	--	-	*	0	*	0	420	1
....MELOSIRA	300#	17	8	1	--	-	--	-	--	-	--	-
....STEPHANODISCUS	49	3	--	-	--	-	--	-	--	-	--	-
..PENNALES												
...FRAGILARIACEAE												
....ASTERIONELLA	49	3	49	4	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	240#	15	--	-	--	-	--	-	--	-
...NAVICULACEAE												
....NAVICULA	--	-	*	0	--	-	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	49	3	8	1	*	0	--	-	--	-	--	-
...SURIRELLACEAE												
....CYMATOPLEURA	*	0	--	-	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...OCHROMONADACEAE												
....OCHROMONAS	--	-	--	-	--	-	*	0	*	0	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.MYXOPHYCEAE												
..OSCILLATORIALES												
...NOSTOCACEAE												
....ANABAENA	--	-	--	-	1600#	53	--	-	*	0	6700	15
....APHANIZOMENON	--	-	1300#	77	--	-	29000#	100	62000#	100	39000#	85
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	1100#	37	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.CRYPTOPHYCEAE												
..CRYPTOMONIDALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	300	10	--	-	--	-	--	-
...CRYPTOMONODACEAE												
....CRYPTOMONAS	--	-	49	4	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...CERATIACEAE												
....CERATIUM	--	-	--	-	--	-	--	-	*	0	--	-
...GLENODINIACEAE												
....GLENODINIUM	--	-	8	1	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06640500 PATHFINDER RESERVOIR NEAR ALCOVA, WY--Continued

SAMPLE SITE 3.--Lat 42°28'23", long 106°54'50", in SW¼NE¼NE¼ sec.20, T.29 N., R.84 W., about 4 mi (6 km) upstream from dam in the Sweetwater River arm of reservoir.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	RESERVOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DISSOLVED OXYGEN (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
JULY, 1976												
13...	845,000	6.6	SURFACE	20.0	8.3	290	.39	.02	.01	.01	21000	2.1
			30	16.0	7.6	296	.40	.03	.02	.01	1800	2.0
			91	13.5	6.1	303	.41	.12	.02	.02	760	6.2
AUG.												
04...	740,000	6.0	SURFACE	19.5	8.4	291	.40	.01	.00	.01	--	.4
			50	18.0	6.1	290	.39	.03	.00	.01	--	.2
			95	14.0	4.4	302	.41	.16	.00	.03	--	6.0
AUG.												
17...	663,000	3.7	1.0	--	--	--	--	--	--	--	240000	--
			40	--	--	286	.39	.02	.00	.00	250000	.3
			85	--	--	300	.41	.19	.00	.02	1400	4.7
SEP.												
01...	617,000	6.1	1.0	--	--	296	.40	.02	.00	.00	--	.4
			40	--	--	303	.41	.07	.00	.01	--	.2
			89	--	--	302	.41	.15	.04	.02	--	7.9

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JUL 13,76	JUL 13,76	JUL 13,76	AUG 17,76	AUG 17,76	AUG 17,76
TIME	1150	1145	1155	1210	1215	1220
DEPTH BELOW SURFACE (FT)	SURFACE	91	30	85	40	1.0
TOTAL CELLS/ML	21000	760	1800	1400	250000	240000
DIVERSITY: DIVISION	0.3	0.6	0.2	0.3	0.1	0.0
.CLASS	0.3	0.6	0.2	0.3	0.1	0.0
..ORDER	0.3	1.1	0.4	0.3	0.1	0.0
...FAMILY	0.3	1.2	0.4	0.6	0.1	0.0
....GENUS	1.2	1.4	0.8	0.6	0.3	0.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...OOCYSTACEAE												
....ANKISTRODESMUS	280	2	--	-	20	2	*	0	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	3700	2	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	110#	16	--	-	--	-	--	-	--	-
...PHACOTACEAE												
....PHACOTUS	--	-	--	-	--	-	*	0	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	530#	71	*	0	12	1	*	0	*	0
....MELOSIRA	*	0	--	-	--	-	*	0	--	-	--	-
....STEPHANODISCUS	--	-	38	6	--	-	--	-	--	-	--	-
..PENNALES												
...CYMBELLACEAE												
....CYMBELLA	--	-	38	6	--	-	--	-	--	-	--	-
...EUNOTIACEAE												
....EUNOTIA	--	-	--	-	*	0	--	-	--	-	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	38	6	--	-	18	2	--	-	--	-
...NAVICULACEAE												
....NAVICULA	--	-	--	-	--	-	*	0	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	--	-	--	-	--	-	*	0	--	-	--	-
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...OCHROMONADACEAE												
....OCHROMONAS	670	4	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.MYXOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	80	5	--	-	--	-	--	-
..OSCILLATORIALES												
...NOSTOCACEAE												
....ANABAENA	5900#	29	--	-	110	7	--	-	7900	4	--	-
....APHANIZOMENON	14000#	68	--	-	1600#	88	1300#	93	230000#	96	240000#	101
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	47	4	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.CRYPTOPHYCEAE												
..CRYPTOMONIDALES												
...CRYPTOMONODACEAE												
....CRYPTOMONAS	*	0	--	-	10	1	--	-	--	-	--	-
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....TRACHELOMONAS	*	0	--	-	10	1	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06641500 ALCOVA RESERVOIR AT ALCOVA, WY

LOCATION.--Lat 42°32'52", long 106°43'08", in SE¼SE¼ sec.24, T.30 N., R.83 W., Natrona County, Hydrologic Unit 10180007, in elevator shaft at right end of dam on North Platte River and 0.2 mi (0.3 km) southwest of Alcova.

DRAINAGE AREA (REVISED).--10,766 mi^2 (27,884 km^2), of which 700 mi^2 (1,813 km^2) is probably noncontributing. The 3,959 mi^2 (10,254 km^2) in Great Divide Basin is not included.

RESERVOIR-CONTENTS RECORD

PERIOD OF RECORD.--February 1938 to current year. Prior to October 1950 monthend figures only, published in WSP 1310.

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder for elevations above 5,447.00 ft (1,660.246 m). Datum of gage is 5,320 ft (1,621.5 m) above mean sea level (levels by Bureau of Reclamation); gage readings have been reduced to elevations above mean sea level. Prior to June 27, 1955, nonrecording gages near present site at same datum.

REMARKS.--Reservoir is formed by rock-fill dam completed in January 1938; storage began Feb. 8, 1938. Capacity, 184,300 acre-ft (227 hm^3) at elevation 5,500.00 ft (1,676.400 m), top of spillway gates. Dead storage, 100 acre-ft (0.123 hm^3). Figures given herein represent total contents. Usable contents published prior to October 1956. Water is used for irrigation in North Platte River basin.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 190,300 acre-ft (235 hm^3) Aug. 14, 15, 1952, elevation, 5,499.92 ft (1,676.376 m); minimum daily (since appreciable storage was attained), 1,980 acre-ft (2.44 hm^3) Sept. 30, 1940, elevation, 5,353.56 ft (1,631.765 m). No usable storage prior to February 1938.

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 183,000 acre-ft (226 hm^3) July 23-25; maximum daily elevation, 5,499.47 ft (1,676.238 m) July 23; minimum daily contents, 155,000 acre-ft (191 hm^3) on many days during November to February; minimum daily elevation, 5,487.39 ft (1,672.556 m) Jan. 15.

Capacity table (elevation, in feet, and contents, in acre-feet)

5,487	154,000	5,495	172,000
5,490	160,000	5,500	184,000

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	180000	156000	156000	156000	156000	156000	156000	180000	180000	180000	180000	181000
2	180000	156000	156000	156000	156000	156000	156000	179000	180000	180000	180000	180000
3	180000	155000	156000	156000	156000	156000	156000	179000	180000	180000	180000	180000
4	180000	156000	156000	156000	156000	156000	156000	179000	180000	180000	180000	180000
5	180000	156000	156000	156000	156000	156000	157000	179000	180000	180000	180000	180000
6	179000	155000	156000	156000	156000	156000	157000	179000	180000	180000	179000	180000
7	178000	155000	156000	155000	156000	156000	157000	179000	180000	180000	179000	181000
8	177000	155000	156000	155000	156000	156000	158000	179000	180000	180000	179000	181000
9	176000	155000	156000	155000	155000	156000	159000	179000	180000	180000	179000	180000
10	175000	155000	156000	155000	155000	156000	160000	179000	180000	180000	179000	180000
11	174000	155000	156000	155000	155000	156000	161000	179000	180000	179000	179000	180000
12	173000	156000	157000	155000	155000	156000	162000	178000	180000	179000	179000	180000
13	172000	156000	157000	155000	155000	156000	163000	178000	181000	179000	179000	180000
14	171000	155000	157000	155000	155000	156000	164000	179000	180000	180000	179000	180000
15	170000	156000	157000	155000	155000	156000	166000	179000	180000	179000	180000	180000
16	169000	156000	157000	155000	155000	156000	168000	179000	180000	180000	179000	180000
17	168000	156000	157000	155000	155000	156000	170000	179000	180000	180000	179000	180000
18	167000	156000	157000	155000	155000	156000	172000	179000	180000	180000	179000	180000
19	166000	156000	157000	155000	155000	156000	174000	179000	180000	180000	180000	180000
20	165000	156000	157000	155000	155000	156000	176000	178000	180000	180000	180000	180000
21	165000	156000	157000	155000	156000	156000	178000	179000	180000	180000	180000	180000
22	165000	157000	156000	155000	156000	156000	180000	180000	180000	181000	181000	180000
23	165000	156000	156000	156000	156000	157000	181000	181000	180000	183000	180000	181000
24	163000	156000	156000	156000	156000	156000	181000	181000	180000	183000	180000	181000
25	163000	156000	156000	156000	156000	156000	181000	181000	180000	183000	180000	181000
26	161000	156000	155000	156000	156000	156000	181000	181000	180000	182000	180000	181000
27	160000	156000	155000	156000	156000	156000	181000	181000	180000	181000	180000	181000
28	159000	156000	155000	156000	156000	156000	181000	180000	179000	181000	180000	180000
29	158000	156000	155000	156000	156000	156000	180000	180000	180000	181000	180000	180000
30	156000	156000	155000	156000	---	156000	180000	180000	179000	180000	180000	180000
31	156000	---	155000	156000	---	156000	---	180000	---	180000	181000	---
MAX	180000	157000	157000	156000	156000	157000	181000	181000	181000	183000	181000	181000
MIN	156000	155000	155000	155000	155000	156000	156000	178000	179000	179000	179000	180000
(†)	5,488.05	5,488.18	5,487.68	5,488.15	5,487.91	5,488.08	5,498.23	5,498.33	5,498.01	5,498.33	5,498.46	5,498.31
(‡)	-24,000	0	-1,000	+1,000	0	0	+24,000	0	-1,000	+1,000	+1,000	-1,000

CAL YR 1975	MAX 181000	MIN 155000	‡-2000
WTR YR 1976	MAX 183000	MIN 155000	‡ 0

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06641500 ALCOVA RESERVOIR AT ALCOVA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Reservoir sampled at one site prior to July 1973 and at both sites thereafter. Samples are collected at the surface, the thermocline or midpoint if a well defined thermocline is not present, and at the bottom. Dissolved oxygen and temperature are measured at additional depths. Reservoir storage represents total contents at 2400 hours.

SAMPLE SITE 1.--Lat 42°30'12", long 106°43'26", in SE¼NW¼NE¼ sec.25, T.30 N., R.83 W., about 1,600 ft (490 m) upstream from dam.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	RESER-VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS-SOLVED OXYGEN (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED PHOS-PHORUS (P) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
JULY, 1976												
12...	179,000	13.3	SURFACE	20.0	8.5	329	.45	.07	.01	.00	530	.2
			40	14.5	8.0	321	.44	.08	.02	.01	5500	1.4
			134	12.0	7.0	320	.44	.16	.00	.02	110	9.6
AUG.												
05...	180,000	12.9	SURFACE	19.0	7.8	326	.44	.08	.08	.01	--	.3
			30	15.0	6.8	318	.43	.15	.01	.01	--	.3
			144	13.5	5.9	313	.43	.18	.07	.03	--	8.3
AUG.												
18...	179,000	8.2	1.0	--	--	--	--	.08	.00	.00	58000	.3
			30	--	--	--	--	.09	.00	.01	10000	.3
			152	--	--	--	--	.20	.02	.03	49000	9.3
SEP.												
02...	180,000	13.3	1.0	--	--	315	.43	1.2	.00	.01	--	.4
			60	--	--	316	.43	.29	.00	.02	--	5.6
			160	--	--	315	.43	.29	.02	.04	--	12

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JUL 12,76	JUL 12,76	JUL 12,76	AUG 18,76	AUG 18,76	AUG 18,76
TIME	1645	1650	1655	1125	1130	1135
DEPTH BELOW SURFACE (FT)	134	40	SURFACE	152	30	1.0
TOTAL CELLS/ML	110	5500	530	49000	10000	58000
DIVERSITY: DIVISION	0.0	0.9	0.8	0.0	0.2	0.1
.CLASS	0.0	0.9	0.8	0.0	0.2	0.1
..ORDER	1.0	0.9	0.8	0.0	0.2	0.1
...FAMILY	1.4	0.9	0.8	0.0	0.2	0.1
....GENUS	1.4	0.9	1.0	0.0	0.2	0.1

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	--	-	31	6	--	-	*	0	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	340	7	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	66#	61	--	-	--	-	--	-	--	-	*	0
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	31	6	--	-	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	31	6	--	-	--	-	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	--	-	--	-	*	0	--	-	--	-
...NAVICULACEAE												
....NAVICULA	22#	21	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	22#	21	--	-	--	-	--	-	--	-	*	0
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...OCHROMONADACEAE												
....OCHROMONAS	--	-	4500#	82	--	-	--	-	200	2	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.MYXOPHYCEAE												
..OSCILLATORIALES												
...NOSTOCACEAE												
....APHANIZOMENON	--	-	--	-	--	-	49000#	100	10000#	98	58000#	100
EUGLENOPHYTA (EUGLENOIDS)												
.CRYPTOPHYCEAE												
..CRYPTOMONIDALES												
...CRYPTOMONODACEAE												
....CRYPTOMONAS	--	-	690	13	440#	83	--	-	58	1	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

SAMPLE SITE 2.--Lat 42°30'57", long 106°46'16", in SE¼NW¼NW¼ sec.3, T.29 N., R.83 W., about 3.5 mi (5.6 km) upstream from dam.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	RESER-VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS-SOLVED OXYGEN (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED PHOS-PHORUS (P) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
FEB., 1976												
25...	156,000	4.2	SURFACE	1.5	9.9	307	.42	.27	.09	.03	64	11
			60	2.0	10.4	317	.43	.31	.05	.03	72	11
			115	2.5	10.2	312	.42	.30	.05	.03	190	11
JULY												
12...	179,000	9.2	SURFACE	18.5	8.4	319	.43	.10	.01	.00	1100	.9
			40	13.5	6.9	315	.43	.13	.01	.01	77	2.5
			122	13.5	6.7	318	.43	.16	.01	.02	40	6.1
AUG.												
05...	180,000	10.3	SURFACE	19.0	7.9	310	.42	.08	.00	.01	--	.3
			30	15.0	7.3	311	.42	.08	.00	.00	--	.3
			120	14.0	3.4	305	.41	.17	.00	.03	--	8.7
AUG.												
18...	179,000	6.3	1.0	--	--	--	--	.11	.00	.01	--	.3
			50	--	--	--	--	.16	.00	.01	--	1.8
			118	--	--	--	--	.21	.03	.03	--	8.5
SEP.												
02...	180,000	10.6	1.0	--	--	316	.43	.12	.00	.01	--	.3
			60	--	--	309	.42	.20	.00	.03	--	7.7
			120	--	--	309	.42	.24	.01	.05	--	15

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
PHYTOPLANKTON

DATE	FEB 25,76		FEB 25,76		FEB 25,76		JUL 12,76		JUL 12,76		JUL 12,76	
TIME	1300		1310		1320		1545		1550		1555	
DEPTH BELOW SURFACE (FT)	115		60		SURFACE		122		40		SURFACE	
TOTAL CELLS/ML	190		72		64		40		77		1100	
DIVERSITY: DIVISION	0.6		0.0		0.0		0.7		1.7		0.3	
.CLASS	0.6		0.0		0.0		0.7		1.7		0.3	
..ORDER	1.4		0.0		0.0		1.3		2.0		0.3	
...FAMILY	2.1		0.0		0.0		1.3		2.1		0.3	
....GENUS	2.7		0.0		0.0		1.3		2.1		0.3	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	--	-	--	-	--	-	11	15	40	5
...OOCYSTACEAE												
....ANKISTRODESMUS	20	11	--	-	--	-	7#	19	--	-	--	-
....KIRCHNERIELLA	10	6	--	-	--	-	--	-	4	5	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	51#	27	72#	101	64#	101	26#	64	37#	48	--	-
....MELOSIRA	--	-	--	-	*	0	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....COCCONEIS	10	6	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	*	0	--	-	--	-	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	*	0	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	10	6	--	-	*	0	--	-	--	-	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	41#	22	--	-	*	0	7#	19	*	0	--	-
....FRAGILARIA	41#	22	--	-	*	0	--	-	--	-	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	*	0	--	-	*	0	--	-	--	-	--	-
...NAVICULACEAE												
....NAVICULA	10	6	*	0	*	0	--	-	4	5	--	-
...NITZSCHIACEAE												
....NITZSCHIA	*	0	--	-	*	0	--	-	--	-	--	-
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...OCHROMONADACEAE												
....OCHROMONAS	--	-	--	-	--	-	--	-	--	-	*	0
EUGLENOPHYTA (EUGLENOIDS)												
.CRYPTOPHYCEAE												
..CRYPTOMONIDALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	--	-	--	-	11	15	1100#	96
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	--	-	--	-	--	-	--	-	11	15	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06642000 NORTH PLATTE RIVER AT ALCOVA, WY

LOCATION.--Lat 42°34'27", long 106°41'31", in NW¼NE¼NW¼ sec.17, T.30 N., R.82 W., Natrona County, Hydrologic Unit 10180007, on left bank 0.5 mi (0.8 km) downstream from Hogback Draw, 0.8 mi (1.3 km) downstream from Gray Reef Dam, 1.9 mi (3.1 km) northeast of Alcova, and 3.8 mi (6.1 km) downstream from Alcova Dam.

DRAINAGE AREA (REVISED).--10,812 mi² (28,003 km²), of which 700 mi² (1,813 km²) is noncontributing. The 3,959 mi² (10,254 km²) in Great Divide Basin is not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1904 to December 1905, October 1934 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1937-38, 1945. WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,299.40 ft (1,615.257 m) above mean sea level. Feb. 19, 1904, to Dec. 31, 1905, nonrecording gage at site 3.7 mi (6.0 km) upstream at different datum. June 1, 1935, to Apr. 27, 1961, water-stage recorder at site 3.5 mi (5.6 km) upstream at different datum.

REMARKS.--Records good. Flow completely regulated by Seminoe, Pathfinder, and Alcova Reservoirs. (See sta 06635500, 06640500, 06641500.) Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Seventeen discharge measurements furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,400 ft³/s (379 m³/s) June 6, 10, 11, 1905, gage height, 11.5 ft (3.51 m), site and datum then in use; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,230 ft³/s (120 m³/s) Aug. 1, gage height, 4.86 ft (1.481 m); minimum daily, 550 ft³/s (15.6 m³/s) Oct. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1260	1540	1000	919	919	928	815	608	1240	1780	3660	1880
2	1280	1530	1010	919	928	919	807	608	1240	1790	3640	1860
3	1300	1540	1010	919	919	919	800	608	1240	1780	3620	1850
4	1300	1080	1020	919	919	919	800	608	1240	1790	3620	1840
5	1300	1370	1020	919	919	919	800	608	1240	1790	3620	1810
6	1320	1530	1020	919	919	928	800	608	1240	1780	3620	1800
7	1300	1530	1020	919	919	928	800	608	1240	1750	3600	1800
8	1300	1530	953	919	919	928	792	608	1240	1780	3600	1890
9	1300	1530	919	919	919	928	769	608	1240	1780	3620	2030
10	1490	1530	919	919	919	928	754	614	1260	1830	3620	2130
11	1490	1540	919	928	919	911	754	614	1240	1840	3640	2200
12	1490	1530	919	919	919	895	747	595	1240	1810	3640	2200
13	1490	1530	919	919	928	903	769	595	1240	1650	3640	2170
14	1500	1520	919	919	928	895	815	588	1340	1620	3660	2140
15	1540	1500	919	911	928	895	815	588	1600	1580	3600	2160
16	1540	1520	919	903	928	895	732	601	1650	1580	3310	2140
17	1530	1520	919	903	928	895	614	689	1640	1580	2240	2130
18	1530	1530	919	903	928	895	614	807	1630	1580	1630	2130
19	1450	1530	919	903	928	903	608	928	1620	1580	1620	2140
20	595	1530	919	911	928	911	608	1140	1620	1580	1650	2140
21	550	1280	919	911	928	911	608	1220	1620	1580	1750	2130
22	601	1260	919	911	928	911	614	1220	1630	1580	1740	2140
23	621	1020	919	911	928	903	614	1220	1600	2040	1770	2140
24	1030	978	919	911	928	903	614	1240	1650	3690	1800	2140
25	1540	978	919	911	944	903	608	1260	1680	3710	1780	2250
26	1540	987	919	911	944	903	614	1280	1680	3660	1800	2350
27	1530	987	919	911	944	903	614	1300	1670	3660	1810	2130
28	1530	996	919	911	944	903	608	1280	1700	3600	1900	2010
29	1530	996	919	919	953	903	608	1240	1740	3570	1860	1850
30	1530	1000	928	911	---	903	608	1240	1790	3570	1890	1470
31	1530	---	919	911	---	903	---	1240	---	3660	1880	---
TOTAL	40837	40442	29199	28338	26902	28191	21123	26971	44000	68570	84830	61050
MEAN	1317	1348	942	914	928	909	704	870	1467	2212	2736	2035
MAX	1540	1540	1020	928	953	928	815	1300	1790	3710	3660	2350
MIN	550	978	919	903	919	895	608	588	1240	1580	1620	1470
AC-FT	81000	80220	57920	56210	53360	55920	41900	53500	87270	136000	168300	121100

CAL YR 1975 TOTAL 547300 MEAN 1499 MAX 3860 MIN 456 AC-FT 1086000
WTR YR 1976 TOTAL 500453 MEAN 1367 MAX 3710 MIN 550 AC-FT 992600

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1965 to September 1969, October 1971 to August 1976 (discontinued).

INSTRUMENTATION.--Temperature recorder since October 1971.

REMARKS.--Temperature records furnished by Pacific Power and Light Company and Bureau of Reclamation.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.0°C Sept. 21, 1966; minimum, 0.0°C Dec. 26, 1967, Jan. 5, 1968, and on several days during 1969.

EXTREMES FOR PERIOD OCTOBER TO AUGUST.--
WATER TEMPERATURES: Maximum, 16.5°C July 9, 10; minimum, 0.5°C Dec. 31, Jan. 1, 11, 14.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
OCT												
08...	0815	A1300	--	--	11.5	11	9.0	89	200	77	52	17
NOV												
13...	0830	1530	--	--	7.5	10	10.8	84	190	67	48	17
DEC												
04...	1215	1020	--	--	7.0	--	--	--	200	75	54	17
11...	0815	919	--	--	4.0	7	10.2	<1	210	79	57	17
JAN												
14...	1300	919	--	--	1.5	5	12.6	<1	190	67	51	16
19...	1400	895	500	8.7	.0	8	--	--	220	87	60	16
FEB												
12...	0850	919	--	--	2.0	4	12.6	81	190	67	50	16
25...	1100	944	--	--	3.0	--	--	--	190	62	51	15
MAR												
13...	0800	903	--	--	1.0	5	12.4	<1	180	57	48	15
APR												
12...	1500	754	460	8.6	6.5	8	12.2	--	180	65	49	15
15...	1045	815	--	--	5.5	6	12.8	81	190	65	49	16
MAY												
12...	0750	575	--	--	8.0	6	10.6	82	180	52	49	15
27...	1220	1300	--	--	9.5	--	--	--	180	52	49	15
JUN												
17...	0815	1650	--	--	10.0	4	10.4	83	190	67	50	16
29...	1345	1770	--	--	12.0	--	--	--	190	65	49	16
JUL												
15...	0830	1570	--	--	14.0	2	9.4	87	190	67	48	16
AUG												
03...	1150	3620	--	--	14.0	--	--	--	--	--	--	--
03...	1400	3620	400	8.1	14.0	--	--	--	--	--	--	--
11...	0600	3640	--	--	15.0	2	7.5	81	190	67	49	16
SEP												
08...	0815	1780	--	--	13.0	4	8.2	88	180	57	48	16

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
OCT												
08...	30	.9	3.3	150	0	123	120	9.0	.4	11	321	.44
NOV												
13...	31	1.0	2.8	150	0	123	120	11	.5	11	318	.43
DEC												
04...	32	1.0	3.3	140	5	125	130	7.1	.5	11	331	.45
11...	31	.9	2.8	160	0	131	120	9.2	.5	11	327	.44
JAN												
14...	33	1.0	2.3	150	0	123	120	11	.5	11	324	.44
19...	31	.9	3.4	157	0	129	130	9.3	.4	10	338	.46
FEB												
12...	33	1.0	3.3	150	0	123	120	9.1	.4	11	321	.44
25...	33	1.0	3.3	150	3	128	130	9.1	.5	11	326	.44
MAR												
13...	31	1.0	3.0	150	0	123	110	8.7	.5	12	308	.42
APR												
12...	31	1.0	4.3	145	0	119	110	9.5	.4	11	316	.43
15...	31	1.0	3.0	140	6	125	120	9.4	.4	12	318	.43
MAY												
12...	30	1.0	3.0	150	3	128	110	9.4	.4	11	308	.42
27...	30	1.0	3.3	150	3	128	110	9.3	.5	11	307	.42
JUN												
17...	29	.9	3.3	150	0	123	110	9.3	.4	11	305	.41
29...	30	1.0	2.6	140	6	125	110	7.4	.5	11	306	.42
JUL												
15...	31	1.0	2.6	150	0	123	110	9.3	.4	11	306	.42
AUG												
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
11...	30	1.0	2.6	150	0	123	120	8.5	.5	11	308	.42
SEP												
08...	32	1.0	3.0	150	0	123	120	9.1	.5	11	310	.42

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS- SOLVED SOLIDS (TONS PER DAY)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO- GEN (N) (MG/L)	TOTAL ORGANIC NITRO- GEN (N) (MG/L)	TOTAL KJEL- DAHL NITRO- GEN (N) (MG/L)	TOTAL NITRO- GEN (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)	TOTAL PHYTO- PLANK- TON (CELLS PER ML)	POTEN- TIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
OCT												
08...	1130	.09	--	--	--	--	--	.05	--	--	--	--
NOV												
13...	1310	.09	--	--	--	--	--	.05	--	--	--	--
DEC												
04...	912	.11	--	--	--	--	--	.03	--	--	--	--
11...	811	.07	--	--	--	--	--	.03	--	--	--	--
JAN												
14...	804	.14	--	--	--	--	--	.03	--	--	--	--
19...	817	--	.19	.04	.54	.58	.77	.02	180	6.2	10	24
FEB												
12...	797	.14	--	--	--	--	--	.03	--	--	--	--
25...	831	.14	--	--	--	--	--	.03	--	--	--	--
MAR												
13...	751	.09	--	--	--	--	--	.01	--	--	--	--
APR												
12...	643	3.2	.25	.04	.54	.58	.83	.05	--	--	15	31
15...	700	.11	--	--	--	--	--	.02	--	--	--	--
MAY												
12...	478	.07	--	--	--	--	--	.03	--	--	--	--
27...	1080	.05	--	--	--	--	--	.02	--	--	--	--
JUN												
17...	1360	.07	--	--	--	--	--	.02	--	--	--	--
29...	1460	.02	--	--	--	--	--	.02	--	--	--	--
JUL												
15...	1300	.16	--	--	--	--	--	.04	--	--	--	--
AUG												
03...	--	--	--	--	--	--	--	--	--	--	34	332
03...	--	--	--	--	--	--	--	--	--	--	--	--
11...	3030	.27	--	--	--	--	--	.02	--	--	--	--
SEP												
08...	1490	.00	--	--	--	--	--	.01	--	--	--	--

DATE	TIME	TOTAL ALUM- INUM (AL) (UG/L)	DIS- SOLVED ALUM- INUM (AL) (UG/L)	TOTAL ANTI- MONY (SB) (UG/L)	DIS- SOLVED ANTI- MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS- SOLVED ARSENIC (AS) (UG/L)	DIS- SOLVED BARIUM (BA) (UG/L)	TOTAL BERYL- LIUM (BE) (UG/L)	DIS- SOLVED BERYL- LIUM (BE) (UG/L)	DIS- SOLVED BISMUTH (BI) (UG/L)	DIS- SOLVED BORON (B) (UG/L)
JAN												
19...	1400	300	0	0	0	1	1	--	10	0	--	0
APR												
12...	1500	270	10	0	0	2	2	--	0	10	--	60
AUG												
A 03...	1400	--	40	--	--	--	--	30	--	<2	<2	40

DATE	TOTAL CAD- MIUM (CD) (UG/L)	DIS- SOLVED CAD- MIUM (CD) (UG/L)	TOTAL CHRO- MIUM (CR) (UG/L)	DIS- SOLVED CHRO- MIUM (CR) (UG/L)	DIS- SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS- SOLVED COPPER (CU) (UG/L)	DIS- SOLVED GALLIUM (GA) (UG/L)	DIS- SOLVED GER- MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS- SOLVED IRON (FE) (UG/L)
JAN											
19...	<10	0	0	0	--	10	2	--	--	250	90
APR											
12...	<10	1	0	0	--	20	7	--	--	230	10
AUG											
A 03...	--	2	--	10	<2	--	<1	<2	<6	--	40

DATE	TOTAL LEAD (PB) (UG/L)	DIS- SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS- SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN- GANESE (MN) (UG/L)	DIS- SOLVED MAN- GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS- SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB- DENUM (MO) (UG/L)	DIS- SOLVED MOLYB- DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)
JAN											
19...	<100	2	30	20	60	20	.6	.0	2	2	<50
APR											
12...	<100	2	30	20	30	0	.1	.0	3	2	<50
AUG											
A 03...	--	12	--	20	--	3	--	--	--	4	--

DATE	DIS- SOLVED NICKEL (NI) (UG/L)	TOTAL SELE- NIUM (SE) (UG/L)	DIS- SOLVED SELE- NIUM (SE) (UG/L)	DIS- SOLVED SILVER (AG) (UG/L)	DIS- SOLVED STRON- TIUM (SR) (UG/L)	DIS- SOLVED TIN (SN) (UG/L)	DIS- SOLVED TI- TANIUM (TI) (UG/L)	DIS- SOLVED VANA- DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS- SOLVED ZINC (ZN) (UG/L)	DIS- SOLVED ZIR- CONIUM (ZR) (UG/L)
JAN											
19...	0	1	0	--	--	--	--	2.8	40	0	--
APR											
12...	1	2	1	--	--	--	--	2.4	60	10	--
AUG											
A 03...	12	--	--	<1	270	<4	10	<4.8	--	0	<5

A Spectographic analysis of metals.

DATE	TIME	INSTAN- TANEOUS DIS- CHARGE (CFS)	TEMPER- ATURE (DEG C)	SUS- PENDED SEDI- MENT (MG/L)	SUS- PENDED SEDI- MENT DIS- CHARGE (T/DAY)
JAN					
19...	1400	895	.0	10	24
APR					
12...	1500	754	6.5	15	31
AUG					
03...	1150	3620	14.0	34	332

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.5	14.0	10.5	9.5	4.0	2.0	1.0	0.5	3.5	2.0	4.5	3.5
2	15.5	14.0	10.5	9.5	4.0	3.5	1.5	1.0	4.0	3.0	3.5	3.0
3	16.0	13.5	10.5	9.5	4.5	3.5	1.5	1.0	3.5	2.0	3.5	2.0
4	15.0	14.5	10.5	9.5	4.5	3.5	1.5	1.0	2.0	1.5	3.5	3.0
5	15.5	14.0	10.0	9.0	4.0	3.5	1.5	1.0	2.0	1.5	4.0	3.0
6	15.5	14.5	10.0	9.0	4.0	3.5	2.0	1.0	3.0	2.0	3.5	2.0
7	15.0	14.0	9.5	9.0	4.0	4.0	2.0	1.5	3.0	1.5	4.5	3.0
8	14.0	12.0	9.5	9.0	4.5	3.5	2.0	1.5	3.5	2.0	4.5	3.5
9	14.5	13.0	9.5	8.5	4.5	3.5	2.0	1.5	4.0	3.0	5.0	3.5
10	15.0	13.5	9.0	8.5	4.5	4.0	2.0	1.0	4.0	3.0	5.0	3.5
11	14.5	13.5	9.0	8.0	4.0	3.5	1.5	0.5	4.0	3.0	4.5	3.0
12	15.0	13.5	9.0	8.0	4.0	3.5	2.0	1.0	3.5	3.0	4.0	3.0
13	14.0	13.0	9.0	8.5	3.5	2.0	2.0	1.5	4.0	3.0	4.0	3.0
14	13.5	12.0	8.5	7.0	2.0	1.5	2.0	0.5	4.0	3.0	3.5	3.0
15	13.5	12.0	8.0	7.0	3.0	1.0	3.0	1.0	4.0	3.0	4.5	3.0
16	14.0	13.0	8.0	6.5	3.0	1.5	3.0	1.5	3.5	2.0	5.0	3.5
17	14.0	12.0	8.0	6.5	3.0	1.5	3.0	2.0	4.0	3.0	5.0	3.5
18	14.0	12.0	6.5	6.0	3.0	1.5	3.0	1.5	3.5	3.0	5.5	4.0
19	13.5	12.0	6.0	5.5	3.0	1.0	2.0	1.0	3.5	2.0	5.0	4.0
20	13.5	11.5	6.5	5.5	3.0	1.5	2.0	1.0	3.5	3.0	4.5	3.5
21	13.0	11.5	6.5	5.5	3.0	1.5	3.0	1.5	3.5	2.0	4.0	3.0
22	12.0	11.0	6.0	5.5	3.0	1.5	3.0	1.5	3.5	2.0	5.0	3.5
23	11.0	8.5	6.0	5.5	3.0	1.5	3.5	1.5	4.0	2.0	5.0	4.0
24	11.0	9.0	6.0	5.0	3.0	1.5	3.0	2.0	4.5	3.0	5.0	4.0
25	11.0	9.5	5.5	5.0	3.0	2.0	3.0	2.0	4.5	3.0	4.5	4.0
26	11.0	9.5	5.0	4.0	3.0	2.0	3.0	2.0	5.0	3.5	5.0	3.5
27	11.0	10.5	5.0	4.0	2.0	1.5	3.5	2.0	4.5	3.5	5.0	4.0
28	11.0	10.0	5.0	3.5	2.0	1.0	3.5	2.0	4.5	3.5	5.0	4.0
29	11.0	9.5	3.5	3.0	2.0	1.0	4.0	3.0	4.0	3.5	4.5	4.0
30	11.0	10.0	3.0	2.0	2.0	1.0	4.0	3.0	---	---	5.0	4.0
31	10.5	10.0	---	---	1.5	0.5	3.5	2.0	---	---	5.5	4.5
MONTH	16.0	8.5	10.5	2.0	4.5	0.5	4.0	0.5	5.0	1.5	5.5	2.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	5.5	4.5	9.0	8.0	11.5	10.5	15.0	13.5	16.0	14.0		
2	6.0	4.5	9.0	8.0	12.0	10.5	14.5	13.5	14.5	14.5		
3	6.0	5.0	9.5	8.5	11.5	11.0	15.5	13.5	15.5	14.0		
4	6.5	5.0	9.5	8.5	11.5	11.0	15.5	14.0	15.5	14.0		
5	6.5	5.5	9.5	8.5	12.0	11.0	16.0	14.0	15.5	14.5		
6	6.0	5.5	9.5	9.0	12.0	11.5	16.0	14.0	---	---		
7	6.5	5.5	9.5	9.0	12.0	11.5	16.0	14.5	---	---		
8	6.5	5.5	9.5	9.0	13.0	11.0	16.0	14.5	---	---		
9	7.0	6.0	10.0	9.0	13.0	11.5	16.5	14.5	---	---		
10	6.5	5.5	10.5	9.0	13.0	11.0	16.5	14.5	---	---		
11	7.0	5.5	10.0	9.5	13.0	11.5	16.0	14.0	---	---		
12	7.0	6.0	10.0	9.0	12.0	11.0	16.0	14.5	---	---		
13	7.0	6.5	10.5	9.0	11.5	11.0	16.0	14.5	---	---		
14	7.0	6.5	10.5	9.5	11.0	11.0	15.5	13.5	---	---		
15	8.0	6.5	10.0	9.0	12.0	11.0	15.0	13.5	---	---		
16	7.0	6.0	9.5	8.5	12.0	11.0	14.5	13.0	---	---		
17	6.5	6.0	10.5	9.0	11.5	11.5	14.5	13.0	---	---		
18	7.0	6.0	10.5	9.5	12.0	11.0	14.5	13.5	---	---		
19	8.0	6.5	10.5	9.5	13.5	11.0	15.0	13.5	---	---		
20	8.5	6.5	10.5	9.5	13.5	11.5	14.5	13.5	---	---		
21	8.5	7.0	10.0	9.5	13.5	11.5	15.5	13.5	---	---		
22	9.0	8.0	10.0	9.5	13.5	12.0	15.0	13.5	---	---		
23	8.5	8.0	9.5	9.0	13.5	12.0	15.0	13.5	---	---		
24	9.0	7.0	10.5	9.0	14.0	12.0	15.0	13.5	---	---		
25	8.5	8.0	10.5	10.0	14.0	12.0	15.0	13.5	---	---		
26	8.5	8.0	11.0	10.0	14.0	12.0	15.0	13.5	---	---		
27	9.0	8.0	11.0	10.0	14.0	12.0	15.0	14.0	---	---		
28	9.0	8.0	11.5	10.0	14.5	12.0	15.5	14.0	---	---		
29	8.5	8.0	11.0	10.5	14.5	13.0	14.5	14.0	---	---		
30	8.5	7.0	11.0	10.5	14.5	13.0	15.0	14.0	---	---		
31	---	---	11.5	10.5	---	---	16.0	14.0	---	---		
MONTH	9.0	4.5	11.5	8.0	14.5	10.5	16.5	13.0	---	---		
YEAR	16.5	0.5										

06642000 NORTH PLATTE RIVER AT ALCOVA, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JAN 19,76
TIME	1400
TOTAL CELLS/ML	180
DIVERSITY: DIVISION	0.3
.CLASS	0.3
..ORDER	0.7
...FAMILY	2.0
....GENUS	2.2

ORGANISM	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	9	6
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	9	6
....STEPHANODISCUS	9	6
..PENNALES		
...ACHNANTHACEAE		
....COCCONEIS	9	6
....RHOICOSPHENIA	9	6
...CYMBELLACEAE		
....CYMBELLA	*	0
...DIATOMACEAE		
....DIATOMA	100#	56
...FRAGILARIACEAE		
....SYNEDRA	9	6
...NAVICULACEAE		
....NAVICULA	27#	16

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

PERIPHYTON

JAN. 19, 1976
1400 HOURS

IDENTIFICATION OF PERIPHYTON

_ORGANISM__NAME_______________	_COMMON__NAME______
CHLOROPHYTA	GREEN ALGAE
.CHLOROPHYCEAE	
..OEDOGONIALES	
...OEDOGONIACEAE	
....OEDOGONIUM	
CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..CENTRALES	CENTRIC
...COSCINODISCACEAE	
....CYCLOTELLA	
....MELOSIRA	
..PENNALES	PENNATE
...ACHNANTHACEAE	
....COCCONEIS	
....RHOICOSPHENIA	
...CYMBELLACEAE	
....CYMBELLA	
...DIATOMACEAE	
....DIATOMA	
...FRAGILARIACEAE	
....ASTERIONELLA	
....FRAGILARIA	
...NAVICULACEAE	NAVICULOID
....NAVICULA	
....PINNULARIA	
...NITZSCHIACEAE	
....NITZSCHIA	
...SURIRELLACEAE	
....CYMATOPLEURA	
....SURIRELLA	

NOTE: & - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06643000 BATES CREEK NEAR ALCOVA, WY

LOCATION.--Lat 42°40'34", long 106°36'09", in SE¼SE¼ sec.1, T.31 N., R.82 W., Natrona County, Hydrologic Unit 10180007, at former gaging station, 2.8 mi (4.5 km) upstream from mouth, and 10.5 mi (16.9 km) northeast of Alcova.

DRAINAGE AREA.--393 mi² (1,018 km²).

PERIOD OF RECORD.--Water years 1957-58, 1970 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)
OCT 08...	0730	.50	2200	7.7	7.0	4	8.0
NOV 13...	0745	75	1300	8.0	2.0	7	10.8
DEC 11...	0730	64	1250	8.1	2.0	7	10.0
JAN 14...	1230	E30	1300	7.8	.5	7	11.8
FEB 12...	0815	14	1150	7.9	1.0	15	11.0
MAR 13...	0730	9.0	1200	7.9	.5	25	11.4
APR 15...	1000	E50	460	7.6	6.0	180	10.2
MAY 12...	0715	65	380	7.6	9.0	70	8.7
JUN 17...	0745	E25	910	7.9	10.0	150	9.2
JUL 15...	0745	3.7	1600	7.9	14.5	1	8.0
AUG 11...	0530	E8.0	1500	7.9	14.0	30	7.8
SEP 08...	0730	E5.0	1750	7.8	10.0	15	8.5

E Estimate.

06644085 NORTH PLATTE RIVER AT MILLS, WY

LOCATION.--Lat 42°50'31", long 106°21'33", in NW¼NE¼SE¼ sec.7, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at railroad bridge, 700 ft (213 m) upstream from Casper Creek, 900 ft (274 m) east of Mills city limits, and 0.2 mi (0.3 km) upstream from bridge on U.S. Highways 20 and 26.

PERIOD OF RECORD.--Water years 1970 to current year.

REMARKS.--Discharge records furnished by Bureau of Reclamation.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
OCT												
07...	0945	1360	650	8.3	14.0	9	7.6	17	270	190	--	--
23...	1600	625	710	8.5	4.5	9	11.5	14	513	61	--	--
NOV												
07...	1115	1600	650	8.5	6.5	15	10.0	14	256	9	--	--
19...	1400	1620	725	8.3	3.0	11	12.0	15	60	8	--	--
28...	1000	1100	760	7.9	.5	6	11.6	--	--	--	--	--
DEC												
02...	0930	1370	740	8.2	3.5	10	11.2	14	--	140	230	94
18...	0930	750	770	7.5	.0	3	13.6	15	77	14	--	--
JAN												
02...	1140	800	760	8.2	.0	7	13.8	20	270	140	--	--
07...	1410	940	680	7.9	.0	4	12.8	--	--	--	--	--
13...	1110	940	750	8.1	.0	7	12.1	17	800	190	--	--
27...	1425	950	950	8.4	.0	12	12.4	25	114	43	--	--
FEB												
10...	1445	900	680	8.4	.0	15	12.0	19	522	109	190	68
20...	1230	975	770	8.3	.5	8	12.4	--	--	--	--	--
23...	0950	980	750	8.1	1.5	10	11.7	18	88	40	--	--
MAR												
09...	0930	960	860	7.9	3.5	13	12.5	20	37	4	220	83
23...	1145	930	790	8.3	4.5	11	12.0	4	<1	<1	--	--
APR												
05...	1030	850	700	8.5	6.5	20	13.2	14	25	<1	210	82
19...	0930	850	880	7.6	8.0	54	10.2	24	220	330	--	--
MAY												
04...	0925	800	670	7.7	11.5	--	9.9	14	55	12	--	--
11...	0930	800	770	8.7	12.5	15	9.0	--	--	--	--	--
17...	1545	866	800	8.5	14.5	--	9.9	26	--	--	--	--
25...	1110	1420	840	8.8	13.0	45	8.3	--	--	--	--	--
JUN												
03...	1250	1350	750	8.7	15.0	15	10.2	--	3	20	--	--
10...	1400	1430	820	8.8	17.5	5	8.4	--	--	--	--	--
14...	1025	1300	675	8.6	10.5	10	8.8	--	125	45	--	--
24...	1400	1820	690	8.4	15.0	45	9.0	--	--	--	--	--
28...	1315	1820	600	8.7	16.5	15	10.8	15	10	7	--	--
JUL												
06...	1210	1950	650	8.7	18.5	8	9.1	--	--	--	--	--
12...	1245	1960	630	8.7	18.5	10	8.6	17	25	20	--	--
20...	1430	1740	710	8.9	18.5	4	8.9	--	--	--	--	--
27...	1055	3860	580	8.5	22.0	15	7.9	15	190	91	--	--
AUG												
04...	1445	3650	640	8.4	17.0	35	9.0	--	--	--	--	--
09...	1100	3600	640	8.5	16.5	20	7.6	17	70	32	--	--
16...	1340	3470	640	8.1	16.0	20	8.2	--	--	--	--	--
24...	1000	1700	675	8.4	17.5	15	7.5	8	127	58	--	--
30...	1510	1740	670	8.7	18.5	10	8.6	--	--	--	--	--
SEP												
09...	1030	1830	640	8.7	14.0	15	8.0	11	53	33	200	79
13...	1045	2100	760	7.8	15.5	20	7.4	--	--	--	--	--
20...	1230	2100	675	8.3	15.5	15	8.3	8	27	33	--	--
27...	1415	2290	650	8.7	15.5	10	8.5	--	--	--	--	--

06644085 NORTH PLATTE RIVER AT MILLS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)
OCT												
07...	--	--	--	--	--	--	--	--	--	--	--	378
23...	--	--	--	--	--	--	--	--	--	--	--	428
NOV												
07...	--	--	--	--	--	--	--	--	--	--	--	340
19...	--	--	--	--	--	--	--	--	--	--	--	327
28...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
02...	61	18	46	1.3	3.7	161	0	132	170	10	9.9	408
18...	--	--	--	--	--	--	--	--	--	--	--	436
JAN												
02...	--	--	--	--	--	--	--	--	--	--	--	398
07...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	359
27...	--	--	--	--	--	--	--	--	--	--	--	355
FEB												
10...	49	16	37	1.2	4.2	146	0	120	140	9.5	8.4	--
20...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	447
MAR												
09...	58	19	44	1.3	3.8	171	0	140	160	10	9.1	428
23...	--	--	--	--	--	--	--	--	--	--	--	370
APR												
05...	51	21	43	1.3	3.7	161	0	132	160	11	7.4	407
19...	--	--	--	--	--	--	--	--	--	--	--	493
MAY												
04...	--	--	--	--	--	--	--	--	--	--	--	398
11...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	415
25...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
03...	--	--	--	--	--	--	0	--	--	--	--	361
10...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--	356
JUL												
06...	--	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--	403
20...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--	317
AUG												
04...	--	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--	306
16...	--	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--	333
30...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
09...	53	17	35	1.1	3.4	150	0	123	140	9.8	11	349
13...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	333
27...	--	--	--	--	--	--	--	--	--	--	--	--

06644085 NORTH PLATTE RIVER AT MILLS, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	SUS-PENDED SOLIDS (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)
OCT											
07...	--	.51	1390	48	.16	.05	.71	.76	.92	.05	7.0
23...	--	.58	722	20	.35	.02	.71	.73	1.1	.03	5.7
NOV											
07...	--	.46	1470	24	.18	.04	.81	.85	1.0	.05	--
19...	--	.44	1430	20	.19	.01	.70	.71	.90	.02	7.7
28...	--	--	--	--	--	--	--	--	--	--	--
DEC											
02...	398	.54	1470	18	.42	.19	.30	.49	.91	.00	6.6
18...	--	.59	883	5	.58	.00	.66	.66	1.2	.01	7.0
JAN											
02...	--	.54	860	7	.55	.01	.59	.60	1.2	.02	8.9
07...	--	--	--	--	--	--	--	--	--	--	--
13...	--	.49	911	4	.45	.01	.58	.59	1.0	.02	5.4
27...	--	.48	911	12	.47	.03	.65	.68	1.2	.02	16
FEB											
10...	336	.46	816	250	.50	.02	.64	.66	1.2	.04	6.7
20...	--	--	--	--	--	--	--	--	--	--	--
23...	--	.61	1180	23	.48	.02	.48	.50	.98	.03	11
MAR											
09...	388	.53	1010	30	.55	.03	.73	.76	1.3	.03	5.0
23...	--	.50	929	43	.27	.05	.64	.69	.96	.03	6.1
APR											
05...	376	.51	863	22	.21	.03	.59	.62	.83	.05	15
19...	--	.67	1130	282	.58	.02	.97	.99	1.6	.18	6.8
MAY											
04...	--	.54	860	27	.26	.01	.56	.57	.83	.04	5.7
11...	--	--	--	--	--	--	--	--	--	--	--
17...	--	.56	970	53	.25	.19	.69	.88	1.1	.07	5.8
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
03...	--	.49	1320	35	.26	.01	.47	.48	.74	.04	--
10...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
28...	--	.48	1750	29	.09	.07	.43	.50	.59	.05	6.7
JUL											
06...	--	--	--	--	--	--	--	--	--	--	--
12...	--	.55	2130	17	.26	.00	.45	.45	.71	.06	6.5
20...	--	--	--	--	--	--	--	--	--	--	--
27...	--	.43	3300	51	.21	.00	.64	.64	.85	.06	6.6
AUG											
04...	--	--	--	--	--	--	--	--	--	--	--
09...	--	.42	2970	46	.21	.02	.35	.37	.58	.05	7.0
16...	--	--	--	--	--	--	--	--	--	--	--
24...	--	.45	1530	26	.34	.00	.48	.48	.82	.04	9.5
30...	--	--	--	--	--	--	--	--	--	--	--
SEP											
09...	343	.47	1690	44	.23	.05	.65	.70	.93	.05	5.9
13...	--	--	--	--	--	--	--	--	--	--	--
20...	--	.45	1530	26	.34	.00	.48	.48	.82	.04	9.5
27...	--	--	--	--	--	--	--	--	--	--	--

06644500 CASPER CREEK AT CASPER, WY

LOCATION.--Lat 42°50'52", long 106°21'52", in NW¼NE¼ sec.7, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at Bureau of Reclamation gaging station, 700 ft (213 m) upstream from bridge on U.S. Highways 20 and 26, 0.4 mi (0.6 km) upstream from mouth, and 2.0 mi (3.2 km) west of city hall in Casper.

DRAINAGE AREA.--668 mi^2 (1,730 km^2), of which 98 mi^2 (254 km^2) is probably noncontributing.

PERIOD OF RECORD.--Water years 1970 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)
DEC								
19...	1350	E5.0	8000	7.7	.0	11.4	1500	1200

E Estimate.

DATE	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)
DEC									
19...	290	180	730	8.3	8.4	400	0	328	2600

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
DEC								
19...	100	1.3	11	4130	5.62	55.8	9.9	.44

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)
OCT							
07...	0915	E9.9	4600	8.2	10.5	2	8.9
NOV							
28...	1045	E7.8	8000	8.6	.0	6	10.6
JAN							
07...	1500	E6.6	8000	7.1	.0	5	10.4
FEB							
20...	1145	7.2	>8000	8.2	1.5	20	11.0
MAR							
09...	0915	9.2	8000	8.1	1.5	7	11.2
APR							
19...	0915	E13	8000	8.1	9.0	20	11.0
MAY							
04...	0910	8.5	8000	7.8	9.0	5	10.1
11...	0915	6.2	8000	8.4	12.0	3	9.1
17...	1550	--	8000	8.4	24.0	4	7.2
25...	1145	31	8000	8.5	17.0	45	7.6
JUN							
04...	1230	E15	7000	8.4	23.0	15	8.8
10...	1345	18	5500	8.4	23.5	20	7.8
24...	1500	34	8000	8.3	21.5	25	8.4
JUL							
06...	1145	13	7000	8.5	25.5	1	8.9
12...	1130	E5.0	7000	8.4	25.0	1	9.6
20...	1450	E17	4800	8.6	25.5	7	8.4
27...	1440	E18	6500	8.3	27.0	20	7.3
AUG							
04...	1415	E14	5000	8.4	25.0	25	8.0
09...	1015	13	5100	8.5	21.0	2	7.6
16...	1225	16	5000	8.3	20.0	7	8.3
24...	0930	13	5200	8.5	16.5	4	7.8
30...	1420	18	5000	8.6	22.0	1	7.4
SEP							
09...	1010	20	3500	8.3	10.5	6	8.5
13...	1030	E15	5400	7.6	14.0	6	8.4
20...	1100	20	6000	8.2	15.0	5	9.1
27...	1525	15	7500	8.4	18.0	5	9.5

E Estimate.

06644550 NORTH PLATTE RIVER AT CASPER, WY

LOCATION.--Lat 42°51'26", long 106°19'09", in SE¼SE¼NW¼ sec.4, T.33 N., R.79 W., Natrona County, Hydrologic Unit 10180007, at bridge on service road, 800 ft (244 m) west of Center Street exit from Interstate Highway 25, and 0.6 mi (1.0 km) northwest of Casper Post Office.

PERIOD OF RECORD.--Water years 1972 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: October 1971 to May 1973, October 1973 to August 1976 (discontinued).

INSTRUMENTATION.--Temperature recorder in Bureau of Reclamation discharge station 0.3 mi (0.5 km) upstream from sampling site.

REMARKS.--Records furnished by Pacific Power and Light Company and Bureau of Reclamtion. Temperature recorder clock stopped Feb. 10-11 (range in temperature 0.0°C to 0.5°C), Mar. 3-4 (range in temperature 0.0°C to 1.0°C); no record Feb. 18-27, July 4-5.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 23.0°C July 13, 23, 1976; minimum, 0.0°C Oct. 28 to Nov. 1, 1971, and on many days during December 1975 to March 1976.

EXTREMES FOR PERIOD OCTOBER TO AUGUST.--
WATER TEMPERATURES: Maximum, 23.0°C July 13, 23; minimum, 0.0°C on many days during December to March.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)
OCT							
07...	0830	1360	640	8.4	13.5	7	7.9
NOV							
28...	1115	1070	790	7.9	.0	7	10.6
DEC							
19...	1445	810	800	8.2	.5	--	13.4
JAN							
07...	1530	920	740	7.3	.0	3	11.8
FEB							
20...	1530	975	880	8.5	1.5	15	12.2
MAR							
09...	1245	970	960	8.6	4.5	9	11.8
APR							
19...	0850	850	1200	8.0	7.5	140	10.3
MAY							
04...	0840	800	860	7.8	10.5	25	9.4
11...	0840	800	1010	8.7	12.0	30	8.2
17...	1615	866	980	8.9	15.0	20	9.6
25...	1210	1450	1000	8.8	12.5	60	8.4
JUN							
04...	1145	1350	940	8.6	16.0	15	9.5
10...	1300	1450	890	8.6	16.5	8	8.5
24...	1530	1860	800	8.7	16.0	45	8.8
JUL							
06...	1230	1960	710	8.7	18.5	9	8.7
12...	1540	1960	730	8.7	--	7	8.8
20...	1530	1740	750	8.8	18.5	6	8.8
27...	1455	3860	610	8.2	16.5	7	8.0
AUG							
04...	1345	3660	700	8.3	17.0	40	8.8
09...	1500	3600	620	8.4	17.5	20	8.0
16...	1410	3480	650	8.2	16.0	20	8.1
24...	0950	1700	760	8.8	16.0	10	7.3
30...	1540	1760	720	8.7	18.5	1	8.2
SEP							
09...	0920	1850	620	8.0	12.5	15	8.0
13...	0945	2100	710	8.4	15.0	20	7.2
20...	1500	2100	690	8.6	16.5	10	8.6
27...	1345	2290	675	8.3	15.0	5	8.2

06644550 NORTH PLATTE RIVER AT CASPER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
NOV 28...	1130	.0	1100	24	71
DEC 19...	1400	.0	1110	30	90
JAN 20...	1100	.0	1120	34	103
FEB 20...	1530	1.5	975	36	95
APR 13...	0920	10.0	893	68	164
JUN 24...	1530	16.0	1860	146	733
AUG 04...	0930	15.4	3700	194	1940
16...	1410	16.0	3480	95	893

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
JUN 24...	1530	16.0	1860	0	0	2	37

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
JUN 24...	49	59	65	67	77	100

06644550 NORTH PLATTE RIVER AT CASPER, WY--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	11.0	9.5	8.5	1.5	1.0	0.0	0.0	0.5	0.0	6.5	3.5
2	15.0	11.0	9.5	8.5	4.0	1.5	0.0	0.0	0.5	0.0	3.5	0.0
3	15.0	11.5	9.5	8.5	4.5	3.5	0.0	0.0	0.0	0.0	---	---
4	14.0	11.5	10.0	8.0	5.0	4.0	0.0	0.0	0.0	0.0	---	---
5	14.0	11.0	10.0	8.0	4.0	3.0	0.0	0.0	0.0	0.0	1.0	0.0
6	15.0	12.0	9.5	8.0	3.5	2.0	0.0	0.0	0.0	0.0	2.0	0.5
7	14.5	12.0	8.5	6.5	4.0	3.5	0.0	0.0	0.5	0.0	5.0	0.5
8	13.0	8.5	8.0	6.0	4.0	2.0	0.0	0.0	0.0	0.0	5.5	2.0
9	10.0	7.0	6.5	5.5	5.0	3.0	0.0	0.0	0.5	0.0	5.5	3.0
10	12.0	9.5	5.5	4.5	5.0	3.5	0.0	0.0	---	---	6.5	3.0
11	13.5	10.5	4.5	3.5	4.0	2.0	0.0	0.0	---	---	5.5	0.5
12	13.5	10.5	4.5	3.0	4.0	1.5	0.0	0.0	0.5	0.0	1.5	0.0
13	12.0	10.5	5.5	3.5	3.5	0.0	0.0	0.0	1.0	0.0	3.0	0.5
14	10.5	8.5	6.5	4.5	0.0	0.0	0.0	0.0	0.5	0.0	2.0	1.0
15	10.0	8.0	8.0	5.5	0.0	0.0	0.0	0.0	0.5	0.0	4.5	1.0
16	11.5	9.0	7.0	6.0	0.0	0.0	0.0	0.0	0.5	0.0	5.5	2.0
17	11.5	9.0	7.0	5.5	0.0	0.0	0.0	0.0	1.0	0.5	8.0	3.5
18	13.0	10.0	6.0	4.5	0.0	0.0	0.0	0.0	---	---	8.5	5.0
19	12.0	10.0	4.5	2.0	0.5	0.0	0.0	0.0	---	---	7.0	4.5
20	11.5	9.5	3.0	1.5	0.5	0.0	0.0	0.0	---	---	4.5	1.5
21	11.0	9.0	3.5	1.5	0.0	0.0	0.0	0.0	---	---	4.0	1.0
22	10.0	7.0	3.0	1.5	0.5	0.0	0.0	0.0	---	---	6.0	1.0
23	7.0	3.0	4.0	3.0	0.5	0.0	0.0	0.0	---	---	7.0	3.5
24	4.5	1.5	4.0	3.0	0.0	0.0	0.0	0.0	---	---	6.0	4.0
25	4.5	1.0	3.0	1.5	0.0	0.0	0.0	0.0	---	---	5.0	4.0
26	7.0	4.0	1.5	1.0	0.0	0.0	0.0	0.0	5.5	---	6.0	3.0
27	8.0	6.5	1.5	1.0	0.0	0.0	0.0	0.0	5.0	---	6.5	3.0
28	8.0	5.5	1.0	0.5	0.0	0.0	0.5	0.0	4.0	3.5	7.0	3.5
29	8.5	5.5	0.5	0.5	0.0	0.0	0.5	0.0	---	2.0	6.0	3.5
30	9.0	6.5	1.0	0.5	0.0	0.0	0.0	0.0	---	---	7.0	3.0
31	10.0	8.5	---	---	0.0	0.0	0.0	0.0	---	---	9.0	4.0
MONTH	15.0	1.0	10.0	0.5	5.0	0.0	0.5	0.0	---	---	9.0	0.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.0	5.0	13.5	8.5	18.0	13.0	19.0	17.0	19.0	18.0		
2	8.5	5.5	15.0	10.0	18.5	13.5	19.0	16.5	18.5	16.5		
3	9.0	4.5	14.5	10.5	18.5	13.5	20.0	15.5	19.0	16.5		
4	11.0	6.0	14.0	11.0	18.5	13.5	21.5	16.5	18.5	17.0		
5	11.5	7.0	13.5	10.0	19.5	13.5	---	18.0	18.0	17.0		
6	10.0	7.0	13.0	9.5	19.5	14.5	---	---	---	---		
7	9.0	6.0	15.0	9.5	19.5	15.0	21.0	18.0	---	---		
8	10.5	6.5	16.5	10.5	20.0	15.0	21.0	17.0	---	---		
9	10.5	7.0	16.0	12.0	19.5	15.0	21.0	18.0	---	---		
10	9.0	6.5	16.5	13.0	19.5	14.0	22.0	18.5	---	---		
11	11.0	6.5	15.5	12.0	17.0	14.0	21.5	18.5	---	---		
12	11.5	8.5	13.5	10.5	15.0	11.5	20.5	18.0	---	---		
13	10.5	8.5	16.0	10.0	14.5	11.0	23.0	18.5	---	---		
14	10.5	6.5	18.0	13.0	12.0	9.0	22.0	19.0	---	---		
15	11.0	6.5	15.5	11.5	14.5	8.0	21.0	18.0	---	---		
16	9.5	5.5	14.0	8.0	14.0	12.0	22.0	18.0	---	---		
17	8.0	5.0	17.0	10.5	12.0	11.0	22.0	18.5	---	---		
18	8.5	5.5	18.5	14.0	13.0	10.0	21.0	19.0	---	---		
19	9.5	6.0	19.0	14.5	15.5	10.5	21.0	18.5	---	---		
20	10.5	6.0	16.5	14.5	17.0	14.5	21.0	18.5	---	---		
21	11.0	8.0	15.0	12.0	19.0	15.5	21.0	18.0	---	---		
22	10.5	8.0	13.5	10.5	18.5	16.0	22.0	18.0	---	---		
23	10.0	8.5	10.5	9.5	16.0	14.5	23.0	18.5	---	---		
24	13.0	7.0	12.0	9.0	15.5	13.0	20.5	19.0	---	---		
25	11.5	9.0	14.5	11.0	16.0	14.0	19.5	18.0	---	---		
26	10.0	6.5	16.5	11.5	16.5	13.5	19.0	18.0	---	---		
27	11.0	6.5	18.0	13.0	17.0	14.5	19.5	17.0	---	---		
28	9.0	7.0	18.0	13.5	18.5	15.5	19.5	17.0	---	---		
29	10.0	8.5	16.5	13.5	18.5	16.0	18.5	16.5	---	---		
30	11.0	8.0	16.0	13.0	19.0	17.0	18.0	16.0	---	---		
31	---	---	16.5	14.5	---	---	19.0	17.0	---	---		
MONTH	13.0	4.5	19.0	8.0	20.0	8.0	23.0	15.5	---	---		
YEAR	23.0	0.0										

06645000 NORTH PLATTE RIVER BELOW CASPER, WY

LOCATION (REVISED).--Lat 42°51'40", long 106°12'53", in SE¼NW¼NW¼ sec.4, T.33 N., R.78 W., Natrona County, Hydrologic Unit 10180007, at New Mystery Bridge, 0.1 mi (0.2 km) upstream from Claude Creek, 0.6 mi (1.0 km) north of U.S. Highways 20 and 87, 5.8 mi (9.3 km) east of city hall in Casper, and 9.5 mi (15.3 km) downstream from Casper Creek.

DRAINAGE AREA (REVISED).--12,574 mi^2 (32,567 km^2), of which 831 mi^2 (2,152 km^2) is probably noncontributing. The 3,959 mi^2 (10,254 km^2) in Great Divide Basin is not included.

PERIOD OF RECORD.--Water years 1947-52, 1957-59, 1968 to current year.

REMARKS.--Discharge records furnished by Bureau of Reclamation.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	CHEMICAL OXYGEN DEMAND (HIGH LEVEL) (MG/L)	IMMEDIATE COLIFORM (COL. PER 100 ML)	FECAL COLIFORM (COL. PER 100 ML)
OCT										
07...	1245	1360	720	8.5	15.0	7	9.0	16	55000	37600
23...	1200	625	850	8.3	5.0	7	11.3	75	129000	21500
NOV										
07...	1430	1600	900	8.5	7.0	15	10.8	17	17000	17000
19...	1520	1620	800	8.2	3.0	10	11.7	14	34300	9400
DEC										
02...	1315	1370	860	8.7	3.0	10	12.8	17	--	12000
18...	1245	750	900	7.2	.5	7	13.4	19	30300	1000
JAN										
02...	1435	800	875	7.9	.5	6	14.0	24	20600	11300
13...	1455	940	825	8.4	.0	6	12.9	18	31300	10000
20...	1000	950	760	8.1	.5	10	2.3	--	--	--
27...	1045	950	860	8.3	.5	8	11.8	23	15900	4530
FEB										
10...	1615	900	800	8.2	.0	15	12.0	16	65300	10650
23...	1300	980	900	8.3	2.0	15	12.0	22	127000	4600
MAR										
09...	1245	970	1100	8.7	6.0	11	13.2	14	13500	6800
23...	1430	930	980	8.8	5.5	12	12.6	18	--	3760
APR										
05...	1430	850	930	8.8	9.5	4	15.2	29	13400	3200
12...	0800	893	760	8.6	10.0	14	9.2	--	--	--
19...	1230	850	1310	8.5	11.5	86	10.5	21	94200	7550
MAY										
04...	1230	800	1070	8.8	14.5	--	10.1	28	1700	200
17...	1230	866	965	8.8	14.0	--	10.0	19	615	<1
JUN										
03...	1500	1350	860	8.7	16.0	--	10.4	36	<1	<1
14...	1400	1300	770	8.5	10.5	20	9.0	21	531	60
28...	1500	1820	750	8.8	17.5	10	10.0	--	218	20
JUL										
12...	1410	1960	690	8.8	20.5	15	9.0	--	20	33
27...	1245	3860	640	8.5	19.0	15	8.2	14	2140	545
AUG										
04...	1045	3700	490	8.3	15.4	--	--	--	--	--
09...	1350	3600	630	8.5	17.5	25	7.8	29	8050	463
24...	1230	1700	710	8.8	18.0	10	7.7	--	4600	316
SEP										
09...	1300	1850	680	8.8	17.5	15	8.2	5	1260	158
20...	1415	2100	720	8.7	16.0	15	8.9	9	--	1420

06645000 NORTH PLATTE RIVER BELOW CASPER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
OCT										
07...	260	130	69	21	47	1.3	3.3	160	0	131
23...	280	130	67	27	70	1.8	4.0	170	6	149
NOV										
07...	240	110	65	20	45	1.3	3.0	160	0	131
19...	230	99	62	19	44	1.3	3.3	160	0	131
DEC										
02...	--	--	--	--	--	--	--	--	--	--
18...	270	120	70	24	61	1.6	4.0	180	0	148
JAN										
02...	260	120	65	23	54	1.5	4.2	170	0	139
13...	230	91	59	21	48	1.4	2.8	170	0	139
20...	240	92	62	20	50	1.4	3.6	177	0	145
27...	260	120	61	26	51	1.4	4.2	170	0	139
FEB										
10...	230	99	57	21	52	1.5	3.7	160	0	131
23...	--	--	--	--	--	--	--	--	--	--
MAR										
09...	250	110	64	22	58	1.6	3.3	170	3	144
23...	240	96	61	22	55	1.5	3.5	170	3	144
APR										
05...	250	110	63	22	54	1.5	3.3	160	3	136
12...	240	110	62	21	53	1.5	4.1	161	0	132
19...	--	--	--	--	--	--	--	--	--	--
MAY										
04...	--	--	--	--	--	--	--	--	--	--
17...	250	120	60	24	64	1.8	3.7	160	0	131
JUN										
03...	230	94	59	20	52	1.5	3.3	160	3	136
14...	240	110	59	22	53	1.5	3.5	160	0	131
28...	--	--	--	--	--	--	--	--	--	--
JUL										
12...	220	89	55	19	39	1.2	3.0	160	0	131
27...	--	--	--	--	--	--	--	--	--	--
AUG										
04...	--	--	--	--	--	--	--	--	--	--
09...	200	69	52	17	35	1.1	2.6	160	0	131
24...	--	--	--	--	--	--	--	--	--	--
SEP										
09...	200	72	51	18	43	1.3	3.7	150	3	128
20...	210	79	54	19	40	1.2	2.8	160	0	131

DATE	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	SUSPENDED SOLIDS (MG/L)	DISSOLVED NITRATE (N) (MG/L)
OCT										
07...	190	13	.5	8.7	437	436	.59	1600	24	.43
23...	270	16	.5	8.4	512	552	.75	932	16	.47
NOV										
07...	170	13	.5	11	347	410	.56	1770	32	.41
19...	180	12	.5	9.4	337	411	.56	1800	19	.41
DEC										
02...	--	--	--	--	455	--	.62	1680	28	--
18...	240	17	.5	11	511	515	.70	1040	11	.45
JAN										
02...	220	13	.5	10	390	474	.64	1020	13	.56
13...	180	13	.5	11	301	423	.58	1070	10	.38
20...	190	14	.4	9.1	--	437	.59	1120	--	--
27...	200	12	.5	12	392	454	.62	1160	13	.47
FEB										
10...	200	15	.4	10	367	437	.59	1060	37	.66
23...	--	--	--	--	500	--	.68	1320	38	--
MAR										
09...	220	13	.5	9.5	492	479	.65	1250	30	.43
23...	200	16	.4	10	258	459	.62	1150	39	.66
APR										
05...	220	8.0	.5	7.4	478	460	.63	1060	7	.23
12...	190	13	.4	6.8	--	430	.58	1040	--	--
19...	--	--	--	--	636	--	.87	1460	266	--
MAY										
04...	--	--	--	--	397	--	.54	858	25	--
17...	240	14	.4	10	401	496	.67	1160	0	.54
JUN										
03...	190	16	.5	9.2	322	431	.59	1570	30	.45
14...	200	14	.5	9.8	422	438	.60	1540	54	.43
28...	--	--	--	--	409	--	.56	2010	39	--
JUL										
12...	160	11	.5	10	--	372	.51	1970	41	.47
27...	--	--	--	--	342	--	.47	3560	23	--
AUG										
04...	--	--	--	--	--	--	--	--	--	--
09...	140	9.3	.6	11	282	345	.47	3350	58	.50
24...	--	--	--	--	389	--	.53	1790	0	--
SEP										
09...	150	11	.6	10	363	369	.50	1640	30	.00
20...	160	7.4	.5	13	343	379	.52	2150	30	.61

06645000 NORTH PLATTE RIVER BELOW CASPER, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC CARBON (C) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
OCT									
07...	.23	.23	.62	.85	1.1	.08	7.0	--	--
23...	.58	.16	1.0	1.2	1.8	.08	7.3	--	--
NOV									
07...	.27	.13	.97	1.1	1.4	.09	--	--	--
19...	.27	.13	.97	1.1	1.4	.07	16	--	--
DEC									
02...	.55	.49	.81	1.3	1.9	.00	16	--	--
18...	.72	.14	.96	1.1	1.8	.10	8.0	--	--
JAN									
02...	.66	.18	.74	.92	1.6	.09	7.5	--	--
13...	.55	.12	.75	.87	1.4	.08	9.9	--	--
20...	.68	.09	1.0	1.1	1.8	.05	--	360	17
27...	.69	.07	.60	.67	1.4	.05	19	--	--
FEB									
10...	.85	.14	.96	1.1	2.0	.09	6.1	--	--
23...	.64	.16	.94	1.1	1.7	.13	15	--	--
MAR									
09...	.60	.15	1.1	1.2	1.8	.09	8.3	--	--
23...	.55	.22	.98	1.2	1.8	.15	7.3	--	--
APR									
05...	.38	.18	.67	.85	1.2	.32	6.5	--	--
12...	.35	.00	.94	.94	1.3	.05	--	--	--
19...	1.1	.11	1.3	1.4	2.5	.27	9.8	--	--
MAY									
04...	.42	.11	.89	1.0	1.4	.12	6.0	--	--
17...	.50	.26	.94	1.2	1.7	.17	7.7	--	--
JUN									
03...	.69	.02	.46	.48	1.2	.10	6.6	--	--
14...	.57	.01	.57	.58	1.2	.13	7.1	--	--
28...	.28	.14	.66	.80	1.1	.12	6.4	--	--
JUL									
12...	.51	.00	.68	.68	1.2	.10	2.5	--	--
27...	.26	.04	.58	.62	.88	.07	12	--	--
AUG									
04...	--	--	--	--	--	--	--	--	--
09...	.24	.10	.33	.43	.67	.09	6.2	--	--
24...	.24	.00	.47	.47	.71	.08	9.8	--	--
SEP									
09...	.28	.26	1.1	1.4	1.7	.09	6.6	--	--
20...	.46	.12	.58	.70	1.2	.12	6.6	--	--

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ANTI-MONY (SB) (UG/L)	DIS-SOLVED ANTI-MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BISMUTH (BI) (UG/L)	DIS-SOLVED BORON (B) (UG/L)
JAN												
20...	1000	790	0	--	0	2	0	--	0	0	--	70
APR												
12...	0800	470	10	0	0	3	2	--	0	0	--	70
AUG												
A 04...	1045	--	9	--	--	--	--	30	--	<3	<3	50

DATE	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED GALLIUM (GA) (UG/L)	DIS-SOLVED GER-MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)
JAN											
20...	<10	0	0	0	--	30	2	--	--	460	0
APR											
12...	<10	1	0	0	--	10	3	--	--	630	0
AUG											
A 04...	--	2	--	<3	<3	--	4	<3	<7	--	10

DATE	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L	TOTAL NICKEL (NI) (UG/L)
JAN											
20...	<100	2	30	30	50	10	.2	.0	1	3	<50
APR											
12...	<100	1	30	40	30	10	.0	.0	4	2	<50
AUG											
A 04...	--	5	--	30	--	10	--	--	--	5	--

DATE	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED TIN (SN) (UG/L)	DIS-SOLVED TI-TANIUM (TI) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED ZIR-CONIUM (ZR) (UG/L)
JAN											
20...	4	7	7	--	--	--	--	1.7	90	10	--
APR											
12...	2	8	7	--	--	--	--	.2	10	10	--
AUG											
A 04...	8	--	--	<1	250	<4	<3	<5.2	--	0	<5

A Spectographic analysis of metals.

06645000 NORTH PLATTE RIVER BELOW CASPER, WY -Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JAN 20.76
TIME	1000
TOTAL CELLS/ML	360
DIVERSITY: DIVISION	0.0
.CLASS	0.0
..ORDER	0.0
...FAMILY	1.5
....GENUS	1.5

ORGANISM	CELLS /ML	PER- CENT
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	*	0
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	18	6
....RHOICOSPHENIA	*	0
...CYMBELLACEAE		
....CYMBELLA	*	0
...DIATOMACEAE		
....DIATOMA	150#	41
...FRAGILARIACEAE		
....ASTERIONELLA	*	0
....SYNEDRA	*	0
...GOMPHONEMATACEAE		
....GOMPHONEMA	*	0
...NAVICULACEAE		
....GYROSIGMA	*	0
....NAVICULA	180#	51
...NITZSCHIACEAE		
....NITZSCHIA	18	6

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

PERIPHYTON

JAN. 20, 1976
1000 HOURS

IDENTIFICATION OF PERIPHYTON

_ORGANISM__NAME_____________	_COMMON__NAME_____
CHLOROPHYTA	GREEN ALGAE
.CHLOROPHYCEAE	
..CHLOROCOCCALES	
...OOCYSTACEAE	
....ANKISTRODESMUS	
CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..CENTRALES	CENTRIC
...COSCINODISCACEAE	
....CYCLOTELLA	
..PENNALES	PENNATE
...ACHNANTHACEAE	
....ACHNANTHES	
....COCCONEIS	
....RHOICOSPHENIA	
...CYMBELLACEAE	
....AMPHORA	
....CYMBELLA	
...DIATOMACEAE	
....DIATOMA	
...FRAGILARIACEAE	
....SYNEDRA	
...GOMPHONEMATACEAE	
....GOMPHONEMA	
...NAVICULACEAE	NAVICULOID
& ....NAVICULA	
...NITZSCHIACEAE	
& ....NITZSCHIA	
...SURIRELLACEAE	
....CYMATOPLEURA	
....SURIRELLA	
CYANOPHYTA	BLUE-GREEN ALGAE
.MYXOPHYCEAE	
..OSCILLATORIALES	FILAMENTOUS
...OSCILLATORIACEAE	
....OSCILLATORIA	

NOTE: & - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06645150 SMITH CREEK ABOVE OTTER CREEK, NEAR CASPER, WY

LOCATION.--Lat 42°39'00", long 106°10'44", in SW¼SE¼SW¼ sec.15, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on right bank 1.2 mi (1.9 km) upstream from Otter Creek and 16 mi (26 km) southeast of Casper.

DRAINAGE AREA.--9.91 mi² (25.7 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,550 ft (1,996 m), from topographic map.

REMARKS.--Records poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40 ft³/s (1.13 m³/s) May 13, 1975, gage height, 3.40 ft (1.036 m); maximum gage height, 4.03 ft (1.228 m) May 7, 1975 (backwater from snow); minimum daily discharge, 0.81 ft³/s (0.023 m³/s) Mar. 27, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19 ft³/s (0.54 m³/s) May 23, gage height, 2.98 ft (0.908 m); maximum gage height, 3.42 ft (1.042 m) Oct. 26, 27 (backwater from ice and snow); minimum daily discharge, 1.0 ft³/s (0.028 m³/s) Jan. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	3.2	2.3	1.0	1.8	2.0	2.5	8.6	8.2	3.5	4.9	1.8
2	2.8	3.0	2.6	1.6	1.8	1.8	2.6	10	8.2	3.7	4.2	1.8
3	2.7	2.9	2.6	2.0	1.8	1.7	2.5	11	7.6	3.8	3.3	1.7
4	2.8	2.8	2.7	2.2	1.8	1.6	2.8	13	7.5	3.6	2.9	1.7
5	2.7	2.7	2.6	2.2	1.8	1.5	3.3	12	6.8	3.4	2.9	1.6
6	2.6	2.6	2.5	2.2	1.8	1.6	3.1	12	6.7	3.4	3.0	1.7
7	2.6	2.5	2.4	2.2	1.4	1.6	2.4	12	6.5	3.3	2.9	1.7
8	2.7	2.5	2.4	2.3	1.7	1.6	2.4	11	6.4	3.2	3.0	1.6
9	2.7	2.3	2.4	2.2	2.4	1.6	3.2	13	5.8	3.2	3.1	1.8
10	2.6	2.6	2.4	2.2	2.8	1.7	2.7	12	5.5	3.0	2.9	1.8
11	2.6	2.5	2.4	2.2	1.5	1.7	3.1	13	4.9	2.9	2.9	2.1
12	2.6	2.4	2.3	2.2	1.6	1.6	3.3	11	4.8	2.9	2.9	2.1
13	2.6	2.5	2.3	2.2	1.9	1.7	4.3	9.5	5.0	2.8	2.8	1.8
14	2.6	2.8	2.1	2.1	2.2	1.7	4.9	9.6	6.1	2.8	2.9	2.0
15	2.6	2.9	2.2	2.1	2.4	1.7	5.7	10	7.3	2.6	2.9	1.8
16	2.6	2.7	2.2	2.1	2.4	1.8	5.2	11	8.0	2.7	2.7	1.8
17	2.6	2.5	1.9	2.1	1.7	2.0	3.7	9.5	6.8	2.5	2.5	2.0
18	2.6	2.4	2.1	2.1	1.9	2.3	3.7	9.0	6.6	2.6	2.7	1.8
19	2.6	2.2	2.3	2.0	1.9	2.2	3.9	8.8	5.7	2.6	2.6	1.7
20	2.5	2.0	2.3	2.1	2.0	2.1	4.1	8.8	4.6	4.5	2.4	1.8
21	2.5	1.9	2.2	2.1	1.9	2.1	4.7	8.7	4.5	4.8	2.3	1.8
22	2.6	2.0	2.2	2.0	2.2	2.1	5.4	11	4.5	3.3	2.2	2.1
23	2.5	2.2	2.3	2.1	2.5	2.3	5.9	17	5.7	2.8	2.2	2.2
24	2.2	2.0	2.3	2.1	1.7	2.5	5.6	13	5.1	2.6	2.2	2.0
25	2.0	1.8	2.3	2.1	1.9	2.3	6.1	12	4.7	2.7	2.2	2.0
26	2.2	2.0	2.3	2.1	1.9	2.3	7.3	11	4.3	2.8	2.1	2.1
27	3.0	2.1	2.3	2.1	2.0	2.0	6.6	10	3.8	3.0	2.0	2.2
28	2.8	2.1	2.2	2.1	2.0	2.0	6.3	10	3.7	2.7	1.9	2.1
29	2.9	2.0	1.9	2.1	2.0	2.1	6.1	10	3.7	2.8	1.9	2.1
30	3.1	2.0	2.0	2.0	---	2.0	6.2	10	3.7	2.8	1.9	2.1
31	3.4	---	1.1	1.8	---	1.9	---	9.2	---	3.3	1.8	---
TOTAL	82.1	72.1	70.1	63.9	56.7	59.1	129.6	336.7	172.7	96.6	83.1	56.8
MEAN	2.65	2.40	2.26	2.06	1.96	1.91	4.32	10.9	5.76	3.12	2.68	1.89
MAX	3.4	3.2	2.7	2.3	2.8	2.5	7.3	17	8.2	4.8	4.9	2.2
MIN	2.0	1.8	1.1	1.0	1.4	1.5	2.4	8.6	3.7	2.5	1.8	1.6
AC-FT	163	143	139	127	112	117	257	668	343	192	165	113

CAL YR 1975 TOTAL 1534.71 MEAN 4.20 MAX 24 MIN .81 AC-FT 3040
WTR YR 1976 TOTAL 1279.50 MEAN 3.50 MAX 17 MIN 1.0 AC-FT 2540

06645160 SMITH CREEK AT OTTER CREEK, NEAR CASPER, WY

LOCATION.--Lat 42°39'24", long 106°09'40", in NE¼NW¼SW¼ sec.14, T.31 N., R.78 W., Natrona County, Hydrologic Unit 10180007, on right bank 0.2 mi (0.3 km) upstream from Otter Creek and 16 mi (26 km) southeast of Casper. Prior to Mar. 31, 1976, at site 80 ft (24 m) downstream.

DRAINAGE AREA.--10.9 mi^2 (28.2 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,360 ft (1,939 m), from topographic map. Prior to Mar. 31, 1976, at site 80 ft (24 m) downstream at same datum.

REMARKS.--Records good except those for October to March, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 39 ft^3/s (1.10 m^3/s) May 13, 1975, gage height, 1.54 ft (0.469 m); minimum daily, 0.46 ft^3/s (0.013 m^3/s) Mar. 27, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18 ft^3/s (0.51 m^3/s) May 4, gage height, 2.88 ft (0.878 m); minimum daily, 0.90 ft^3/s (0.025 m^3/s) Jan. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.4	2.2	1.8	.90	1.7	1.8	2.1	7.4	7.4	3.5	3.8	1.5
2	2.4	2.1	2.2	1.4	1.7	1.6	2.1	9.2	6.9	3.6	3.3	1.5
3	2.4	2.1	2.2	1.8	1.6	1.6	2.1	10	6.5	3.7	2.6	1.5
4	2.4	2.0	2.2	2.0	1.5	1.5	2.5	12	6.1	3.3	2.3	1.5
5	2.4	2.0	2.0	2.0	1.4	1.3	2.8	11	5.9	3.2	2.2	1.4
6	2.4	2.0	2.0	2.0	1.4	1.4	2.5	11	5.7	3.1	2.1	1.3
7	2.4	1.9	2.0	2.0	1.3	1.4	2.2	10	5.7	3.0	2.0	1.5
8	2.3	1.9	2.0	2.0	1.5	1.5	2.5	10	6.1	2.9	2.1	1.5
9	2.3	1.8	2.1	2.0	1.9	1.5	3.1	10	4.7	2.8	2.1	1.5
10	2.3	1.9	2.1	2.0	2.3	1.5	2.7	11	4.5	2.8	2.0	1.5
11	2.3	1.8	2.1	1.9	1.7	1.5	3.2	11	4.3	2.8	2.1	1.5
12	2.3	1.8	2.1	2.1	1.7	1.4	3.3	9.6	4.1	2.7	2.0	1.5
13	2.2	1.8	2.0	2.0	1.8	1.5	4.0	9.0	4.3	2.6	2.0	1.6
14	2.3	1.9	1.8	1.8	1.8	1.5	4.5	9.2	5.1	2.5	2.0	1.5
15	2.3	1.9	1.9	1.9	1.8	1.5	5.1	10	6.3	2.5	1.9	1.6
16	2.2	1.9	1.8	1.9	1.8	1.5	4.5	9.9	6.4	2.4	1.9	1.6
17	2.2	1.8	1.6	1.9	1.7	1.5	3.2	8.8	5.7	2.4	1.9	1.5
18	2.2	1.8	1.8	1.9	1.9	1.8	3.2	8.5	5.0	2.4	1.9	1.5
19	2.2	1.7	1.9	1.8	1.9	1.8	3.4	8.6	4.8	2.3	1.9	1.8
20	2.2	1.7	1.9	1.8	1.8	1.5	3.7	8.8	4.3	4.1	1.8	1.8
21	2.2	1.6	1.9	1.8	1.6	1.5	4.2	8.7	4.3	3.9	1.7	1.7
22	2.2	1.7	1.9	1.9	1.7	1.5	4.7	10	4.6	2.7	1.7	1.8
23	2.1	1.8	1.9	2.0	1.8	1.6	5.6	15	5.5	2.5	1.7	1.9
24	1.7	1.7	1.9	2.0	1.6	1.6	5.2	12	5.2	2.5	1.7	1.7
25	1.6	1.2	1.9	1.9	1.7	1.5	5.8	10	4.6	2.4	1.7	1.7
26	1.8	1.6	1.9	1.9	1.7	1.4	6.9	9.4	4.3	2.5	1.7	1.9
27	2.6	1.8	1.8	1.8	1.7	1.4	5.9	8.9	4.0	2.5	1.7	1.8
28	2.4	1.7	1.8	1.7	1.7	1.4	5.7	8.6	3.8	2.2	1.7	1.7
29	2.4	1.6	1.8	1.7	1.7	1.3	5.9	8.4	3.7	2.3	1.6	1.6
30	2.7	1.6	1.9	1.7	---	1.3	5.8	8.5	3.6	2.2	1.6	1.6
31	2.3	---	1.1	1.7	---	1.5	---	7.8	---	2.5	1.6	---
TOTAL	70.1	54.3	59.3	57.20	49.4	46.6	118.4	302.3	153.4	86.8	62.3	48.0
MEAN	2.26	1.81	1.91	1.85	1.70	1.50	3.95	9.75	5.11	2.80	2.01	1.60
MAX	2.7	2.2	2.2	2.1	2.3	1.8	6.9	15	7.4	4.1	3.8	1.9
MIN	1.6	1.2	1.1	.90	1.3	1.3	2.1	7.4	3.6	2.2	1.6	1.3
AC-FT	139	108	118	113	98	92	235	600	304	172	124	95

CAL YR 1975 TOTAL 1390.96 MEAN 3.81 MAX 23 MIN .46 AC-FT 2760
WTR YR 1976 TOTAL 1108.10 MEAN 3.03 MAX 15 MIN .90 AC-FT 2200

06646280 LITTLE DEER CREEK ABOVE EAST CART CREEK, NEAR GLENROCK, WY

LOCATION.--Lat 42°42'54", long 105°57'51", in NW¼NW¼SW¼ sec.28, T.32 N., R.76 W., Converse County, Hydrologic Unit 10180007, on left bank 0.3 mi (0.5 km) upstream from East Cart Creek and 11.2 mi (18.0 km) south of Glenrock.

DRAINAGE AREA.--3.89 mi^2 (10.1 km^2).

PERIOD OF RECORD.--October 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,240 ft (1,902 m), from topographic map.

REMARKS.--Records good except those for October to March, which are poor. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5.7 ft^3/s (0.161 m^3/s) May 23, 1976, gage height, 0.92 ft (0.280 m); maximum gage height, 0.96 ft (0.293 m) Apr. 16, 1976 (backwater from snow); minimum daily discharge, 0.19 ft^3/s (0.005 m^3/s) Nov. 18, 19, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5.7 ft^3/s (0.161 m^3/s) May 23, gage height, 0.92 ft (0.280 m); maximum gage height, 0.96 ft (0.293 m) Apr. 16, (backwater from snow); minimum daily discharge, 0.19 ft^3/s (0.005 m^3/s) Nov. 18, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.50	.66	.40	.31	.36	.47	.82	3.2	2.6	1.1	.73	.44
2	.50	.65	.59	.34	.34	.45	.83	3.6	2.5	1.1	.70	.39
3	.45	.64	.60	.32	.30	.40	.85	3.6	2.4	1.1	.61	.40
4	.45	.63	.54	.35	.30	.40	1.0	4.1	2.3	.99	.57	.41
5	.45	.59	.46	.46	.30	.45	1.2	3.9	2.1	.99	.56	.40
6	.45	.58	.43	.41	.30	.54	1.2	3.7	2.2	.92	.53	.40
7	.45	.58	.41	.34	.30	.52	1.1	3.6	2.0	.92	.48	.49
8	.50	.54	.42	.42	.30	.52	1.3	3.9	2.0	.85	.49	.51
9	.59	.46	.43	.49	.30	.46	1.5	4.1	1.7	.85	.48	.50
10	.49	.44	.43	.47	.40	.51	1.5	4.1	1.5	.85	.48	.44
11	.48	.40	.40	.48	.41	.34	1.7	4.2	1.5	.85	.48	.43
12	.48	.38	.53	.46	.41	.26	2.2	3.9	1.5	.79	.47	.45
13	.50	.46	.37	.43	.41	.52	2.4	3.7	1.6	.79	.52	.49
14	.58	.52	.33	.47	.41	.47	2.3	4.0	2.0	.73	.49	.45
15	.53	.53	.36	.54	.41	.47	2.4	4.4	2.2	.73	.47	.43
16	.65	.53	.39	.58	.41	.49	2.8	4.0	1.7	.73	.45	.44
17	.59	.40	.38	.62	.37	.59	2.7	3.7	2.1	.73	.45	.43
18	.54	.19	.41	.52	.41	.77	1.9	3.7	1.9	.73	.46	.42
19	.52	.19	.44	.45	.41	.74	1.9	3.8	1.7	.73	.46	.50
20	.53	.37	.42	.48	.37	.70	2.0	3.8	1.5	.79	.44	.48
21	.49	.32	.41	.54	.39	.70	2.7	3.5	1.5	.73	.43	.45
22	.55	.36	.40	.58	.35	.67	3.4	3.8	1.4	.66	.45	.72
23	.39	.40	.39	.59	.35	.65	3.4	4.9	1.8	.66	.46	.68
24	.27	.38	.39	.50	.35	.67	3.2	4.0	1.5	.59	.45	.53
25	.46	.38	.44	.41	.35	.66	3.4	3.8	1.3	.59	.44	.53
26	1.0	.32	.44	.36	.33	.58	3.6	3.6	1.2	.84	.43	.66
27	.91	.35	.44	.43	.37	.59	3.2	3.4	1.2	.74	.45	.56
28	.72	.35	.41	.43	.37	.59	3.1	3.2	1.1	.62	.44	.50
29	.70	.34	.37	.39	.41	.47	3.0	3.1	1.1	.62	.42	.47
30	.78	.34	.38	.44	---	.57	2.8	3.1	1.1	.62	.42	.45
31	.76	---	.38	.39	---	.59	---	2.9	---	.62	.44	---
TOTAL	17.26	13.28	13.19	14.00	10.49	16.81	65.40	116.3	52.2	24.56	15.15	14.45
MEAN	.56	.44	.43	.45	.36	.54	2.18	3.75	1.74	.79	.49	.48
MAX	1.0	.66	.60	.62	.41	.77	3.6	4.9	2.6	1.1	.73	.72
MIN	.27	.19	.33	.31	.30	.26	.82	2.9	1.1	.59	.42	.39
AC-FT	34	26	26	28	21	33	130	231	104	49	30	29

CAL YR 1975 TOTAL 372.22 MEAN 1.02 MAX 4.2 MIN .19 AC-FT 738
WTR YR 1976 TOTAL 373.09 MEAN 1.02 MAX 4.9 MIN .19 AC-FT 740

06646300 LITTLE DEER CREEK BELOW EAST CART CREEK, NEAR GLENROCK, WY

LOCATION.--Lat 42°43'17", long 105°57'57", in NW¼NW¼NW¼ sec.28, T.32 N., R.76 W., Converse County, Hydrologic Unit 10180007, on left bank 0.3 mi (0.5 km) downstream from East Cart Creek and 10.8 mi (17.4 km) south of Glenrock.

DRAINAGE AREA.--7.48 mi² (19.4 km²).

PERIOD OF RECORD.--October 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,150 ft (1,875 m), from topographic map.

REMARKS.--Records good except those for October to January and September, which are poor. No diversion above station. Results of two discharge measurements, in cubic feet per second, of the tributary inflow of East Cart Creek are listed below:

May 5... 1.00	June 10... 0.04

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7.4 ft³/s (0.210 m³/s) May 23, 1976, gage height, 0.74 ft (0.226 m); maximum gage height, 3.49 ft (1.064 m) Jan. 12, 1975 (backwater from ice); no flow Oct. 24, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7.4 ft³/s (0.210 m³/s) May 23, gage height, 0.74 ft (0.226 m); maximum gage height, 1.13 ft (0.344 m) Jan. 16 (backwater from ice); no flow Oct. 24.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.22	.35	.10	.21	.23	.35	.74	3.4	2.6	.87	.54	.42
2	.26	.35	.15	.23	.23	.35	.87	4.2	2.3	.87	.68	.32
3	.25	.32	.16	.21	.20	.35	.80	4.4	2.2	1.0	.61	.32
4	.24	.35	.14	.24	.20	.48	1.0	5.0	1.9	.94	.61	.32
5	.24	.35	.10	.31	.20	.42	1.2	4.8	1.8	.94	.61	.42
6	.24	.35	.06	.27	.20	.35	.94	4.5	1.9	.87	.68	.42
7	.25	.35	.04	.23	.20	.35	1.1	4.5	1.8	.80	.54	.54
8	.25	.32	.03	.28	.20	.35	.94	4.4	1.5	.80	.54	.32
9	.26	.27	.04	.32	.20	.32	1.0	5.4	1.4	.74	.42	.26
10	.23	.27	.05	.30	.26	.26	1.2	5.2	1.3	.68	.35	.20
11	.23	.24	.05	.32	.26	.20	1.2	5.2	1.2	.68	.42	.14
12	.23	.22	.08	.30	.29	.14	1.7	5.0	1.1	.68	.42	.14
13	.26	.26	.08	.27	.32	.29	1.9	4.4	1.3	.68	.42	.17
14	.26	.31	.02	.29	.29	.26	1.9	4.5	1.8	.68	.42	.14
15	.29	.26	.05	.36	.26	.23	2.0	5.4	2.5	.68	.35	.14
16	.42	.23	.08	.38	.23	.23	2.9	5.4	1.7	.68	.32	.14
17	.42	.20	.08	.41	.26	.26	2.9	4.8	2.2	.61	.32	.11
18	.35	.18	.11	.35	.23	.35	1.8	4.4	2.2	.61	.29	.14
19	.29	.06	.11	.30	.23	.42	1.8	4.5	1.6	.61	.26	.14
20	.26	.20	.11	.32	.23	.29	2.0	4.7	1.4	.61	.26	.17
21	.26	.17	.11	.38	.23	.29	2.3	4.2	1.3	.74	.26	.14
22	.32	.18	.14	.39	.20	.32	3.9	4.5	1.2	.74	.29	.26
23	.15	.20	.17	.39	.20	.35	4.7	6.6	1.6	.68	.29	.22
24	0	.16	.26	.32	.20	.35	3.7	5.6	1.6	.61	.29	.17
25	.27	.14	.29	.26	.26	.48	4.0	4.7	1.3	.61	.26	.17
26	.59	.06	.29	.24	.29	.32	4.5	4.2	1.2	.74	.29	.21
27	.48	.09	.29	.29	.29	.32	4.0	3.7	1.2	.74	.29	.18
28	.40	.09	.26	.29	.29	.35	3.6	3.3	1.1	.54	.29	.16
29	.40	.09	.24	.26	.29	.20	3.6	3.1	1.0	.48	.26	.15
30	.48	.08	.26	.29	---	.32	3.3	3.0	.94	.42	.23	.15
31	.42	---	.28	.26	---	.54	---	2.9	---	.42	.32	---
TOTAL	9.22	6.70	4.23	9.27	6.97	10.09	67.49	139.9	48.14	21.75	12.13	6.78
MEAN	.30	.22	.14	.30	.24	.33	2.25	4.51	1.60	.70	.39	.23
MAX	.59	.35	.29	.41	.32	.54	4.7	6.6	2.6	1.0	.68	.54
MIN	0	.06	.02	.21	.20	.14	.74	2.9	.94	.42	.23	.11
AC-FT	18	13	8.4	18	14	20	134	277	95	43	24	13

CAL YR 1975 TOTAL 306.25 MEAN .84 MAX 5.2 MIN 0 AC-FT 607
WTR YR 1976 TOTAL 342.67 MEAN .94 MAX 6.6 MIN 0 AC-FT 680

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY

LOCATION.--Lat 42°51'50", long 105°51'56", in NW¼NW¼ sec.4, T.33 N., R.75 W., Converse County, Hydrologic Unit 10180007, on right bank in Glenrock, 900 ft (274 m) downstream from bridge on U.S. Highways 20 and 87, and 0.5 mi (0.8 km) upstream from mouth.

DRAINAGE AREA.--213 mi² (552 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1961 to current year.

REVISED RECORDS.--WSP 2118: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,980 ft (1,518 m), from topographic map.

REMARKS.--Records fair except those for October to March, which are poor. One small reservoir above station, capacity, about 60 acre-ft (0.074 hm³) for irrigation. Diversions above station for irrigation of about 3,700 acres (15.0 km²), of which about 400 acres (1.62 km²) lies below station. Water is diverted to Millar ditch 0.3 mi (0.5 km) upstream and bypasses station.

AVERAGE DISCHARGE.--15 years, 79.1 ft³/s (2.240 m³/s), 57,310 acre-ft/yr (70.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft³/s (402 m³/s) June 12, 1970, gage height, 9.45 ft (2.880 m); no flow at times in 1961-63, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s (12.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 5	0400	*677	19.2	5.33	1.625
May 23	1500	642	18.2	5.32	1.622

Minimum daily discharge, 0.12 ft³/s (0.003 m³/s) July 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.0	21	19	15	22	26	29	175	158	31	2.4	1.7
2	6.0	20	21	16	22	23	31	286	128	28	1.9	1.1
3	6.0	20	21	14	21	19	35	358	101	26	2.6	1.3
4	6.0	20	25	17	14	20	37	416	78	27	3.5	1.9
5	6.0	22	25	19	12	20	36	487	61	21	3.5	2.6
6	7.0	22	24	18	13	23	42	358	56	15	2.6	3.9
7	7.0	22	23	16	16	24	53	362	60	13	2.1	5.0
8	7.0	22	23	18	23	25	50	325	52	11	1.7	6.8
9	7.0	22	24	22	29	24	53	354	42	10	1.3	7.2
10	7.0	22	24	21	27	23	59	397	37	5.9	.98	8.6
11	8.0	22	24	19	22	22	63	411	29	2.4	.98	8.2
12	8.0	21	24	20	26	21	90	411	18	1.7	.69	7.2
13	8.0	20	23	19	25	23	219	313	14	1.3	.69	7.7
14	8.0	21	20	19	23	23	260	309	28	.98	.69	7.2
15	9.0	21	20	21	24	23	271	397	46	.69	.69	8.2
16	10	20	18	23	25	25	333	354	44	.44	.69	6.4
17	9.4	20	16	26	22	28	196	313	41	.34	.69	6.4
18	9.4	19	19	24	21	28	190	278	50	.12	.56	6.4
19	9.4	18	21	22	20	30	175	275	65	.18	.56	65
20	8.7	17	20	23	20	30	161	294	56	1.9	.56	14
21	8.3	17	22	24	20	29	163	321	50	1.1	.83	12
22	7.9	19	22	22	20	31	175	325	54	2.6	.98	10
23	9.8	21	21	20	22	30	239	570	60	2.1	.98	10
24	18	20	21	20	22	30	202	527	74	.83	1.5	9.5
25	16	20	23	18	22	32	206	434	80	.44	2.9	11
26	16	19	24	17	23	34	264	375	54	.56	1.5	10
27	20	19	23	19	25	32	239	341	50	.69	1.3	10
28	19	18	22	21	25	32	209	301	46	.69	1.1	9.5
29	18	17	23	23	24	32	219	250	41	.98	1.1	8.6
30	19	16	25	22	---	29	209	267	34	1.7	1.3	8.2
31	20	---	18	22	---	30	---	209	---	2.9	1.9	---
TOTAL	324.9	598	678	620	630	821	4508	10793	1707	212.54	44.77	275.6
MEAN	10.5	19.9	21.9	20.0	21.7	26.5	150	348	56.9	6.86	1.44	9.19
MAX	20	22	25	26	29	34	333	570	158	31	3.5	65
MIN	6.0	16	16	14	12	19	29	175	14	.12	.56	1.1
AC-FT	644	1190	1340	1230	1250	1630	8940	21410	3390	422	89	547

CAL YR 1975 TOTAL 23784.08 MEAN 65.2 MAX 842 MIN .66 AC-FT 47180
WTR YR 1976 TOTAL 21212.81 MEAN 58.0 MAX 570 MIN .12 AC-FT 42080

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1968 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1967 to September 1976 (discontinued).
WATER TEMPERATURES: October 1967 to September 1976 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,080 micromhos Sept. 9, 1969; minimum daily, 132 micromhos Apr. 27, 1974.
WATER TEMPERATURES: Maximum, 28.0°C Aug. 15, 1969; minimum, 0.0°C on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,410 micromhos Aug. 24, 25; minimum daily, 188 micromhos May 8.
WATER TEMPERATURES: Maximum, 21.0°C July 22, 23, Aug. 23, 26, 27; minimum, 2.0°C on several days during December to February.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT											
20...	1245	8.7	12.5	530	210	100	66	69	1.3	2.6	390
NOV											
10...	1420	22	4.0	430	180	89	50	50	1.1	1.9	310
DEC											
10...	1200	24	5.0	430	180	95	48	43	.9	1.9	300
30...	1440	25	.5	410	170	92	44	41	.9	2.3	290
FEB											
03...	1500	20	1.0	390	150	84	43	39	.9	1.9	290
23...	1150	20	1.0	380	180	85	42	46	1.0	2.1	250
MAR											
09...	1440	24	14.0	360	140	81	39	39	.9	1.4	260
APR											
02...	1225	34	7.5	310	120	67	34	33	.8	1.6	220
MAY											
05...	1045	532	6.0	80	18	21	7.1	7.6	.4	1.2	76
JUN											
11...	1400	29	21.5	370	130	80	42	45	1.0	2.1	290
JUL											
07...	1355	13	24.5	430	140	89	51	55	1.2	1.9	350
AUG											
10...	1215	1.1	23.5	460	120	95	54	110	2.2	2.8	420
SEP											
24...	1250	10	15.0	470	160	83	65	69	1.4	2.6	380

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT											
20...	0	320	320	7.2	.6	15	776	1.06	18.2	.02	.01
NOV											
10...	0	254	280	6.4	.5	12	637	.87	37.8	.00	.00
DEC											
10...	0	246	260	8.1	.5	11	616	.84	39.9	.05	.01
30...	0	238	250	12	.5	13	601	.82	40.6	.00	.02
FEB											
03...	0	238	230	7.0	.4	12	563	.77	30.4	.05	.02
23...	0	205	260	7.7	.4	12	584	.79	31.5	.09	.01
MAR											
09...	6	223	220	5.2	.5	11	534	.73	34.6	.05	.00
APR											
02...	6	190	180	5.2	.4	11	442	.60	40.6	.02	.01
MAY											
05...	0	62	34	1.8	.2	10	211	.29	303	.14	.13
JUN											
11...	0	238	220	6.3	.5	14	552	.75	43.2	.05	.02
JUL											
07...	0	287	270	6.3	.6	15	657	.89	23.1	.00	.01
AUG											
10...	0	344	320	30	.9	13	831	1.13	2.47	.09	.01
SEP											
24...	0	312	310	5.3	.6	14	731	.99	19.7	.00	.01

06646600 DEER CREEK BELOW MILLAR WASTEWAY, AT GLENROCK, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1190	992	933	867	883	799	708	209	287	873	1200	1250
2	1210	980	935	872	856	844	708	279	448	888	1110	1250
3	1200	954	935	920	889	844	653	214	447	888	1150	1250
4	1200	986	942	917	889	829	652	207	510	888	1120	1240
5	1200	975	948	913	878	833	682	196	628	902	1250	1200
6	1140	996	961	897	842	859	678	196	626	926	1230	1140
7	1190	1000	961	868	842	846	488	191	625	921	1220	1170
8	1190	1010	887	856	847	803	433	188	657	970	1220	1130
9	1200	1010	919	860	824	803	353	194	775	991	1280	1180
10	1170	992	947	860	824	803	388	198	777	1010	1200	1140
11	1210	1010	996	860	824	804	360	203	964	1080	1290	1140
12	1210	1040	996	878	822	802	226	203	767	1070	985	1120
13	1130	1030	1010	873	822	867	215	246	777	1060	1210	1120
14	1150	1010	1010	873	827	872	209	249	936	1100	1220	1140
15	1130	1040	935	869	827	888	220	272	873	1150	1240	1120
16	1140	1040	913	871	840	829	302	249	799	1100	1190	1120
17	1160	977	945	828	847	824	302	306	790	1160	1140	1120
18	1150	977	894	871	847	830	269	297	818	1180	1220	1110
19	1160	989	873	859	892	782	270	289	679	844	1190	1150
20	1080	994	883	889	850	774	234	283	679	864	1160	956
21	1170	1050	885	878	905	770	234	285	715	1040	1160	1100
22	1150	993	902	859	882	771	260	301	699	1100	1140	1110
23	1090	993	890	881	875	761	236	299	696	1080	1380	1100
24	1050	967	897	876	875	684	259	272	660	1190	1410	1110
25	1060	985	904	901	861	678	262	292	618	1180	1410	1120
26	1070	996	901	881	825	678	243	260	689	1170	1390	1130
27	1020	993	875	891	825	677	248	288	678	1120	1390	1090
28	993	971	871	834	809	677	260	290	730	1100	1390	1110
29	1020	999	903	831	797	694	276	308	878	1150	1370	1120
30	1000	1000	869	871	---	690	276	300	882	1130	1180	1120
31	992	---	860	876	---	690	---	330	---	1140	1280	---
MONTH	1130	998	922	874	849	781	363	255	704	1040	1240	1140
YEAR	MAX	1410	MIN	188	MEAN	858						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.0	5.0	3.0	3.0	4.0	5.0	7.0	7.0	15.0	16.0	19.0	18.0
2	10.0	5.0	5.0	3.0	4.0	5.0	7.0	7.0	15.0	17.0	18.0	19.0
3	11.0	7.0	5.0	3.0	4.0	5.0	8.0	7.0	15.0	17.0	17.0	18.0
4	12.0	8.0	6.0	4.0	4.0	5.0	8.0	9.0	15.0	17.0	17.0	18.0
5	12.0	8.0	6.0	4.0	4.0	3.0	9.0	8.0	15.0	17.0	19.0	18.0
6	12.0	7.0	6.0	3.0	3.0	3.0	9.0	8.0	15.0	18.0	19.0	18.0
7	12.0	7.0	6.0	3.0	3.0	3.0	9.0	9.0	15.0	18.0	19.0	18.0
8	10.0	6.0	6.0	4.0	2.0	4.0	8.0	10.0	16.0	17.0	19.0	15.0
9	9.0	4.0	7.0	4.0	3.0	4.0	9.0	10.0	16.0	17.0	18.0	15.0
10	10.0	4.0	7.0	4.0	3.0	5.0	9.0	10.0	17.0	18.0	17.0	15.0
11	10.0	4.0	6.0	4.0	3.0	5.0	9.0	9.0	15.0	19.0	17.0	15.0
12	9.0	4.0	6.0	3.0	4.0	5.0	9.0	8.0	14.0	20.0	19.0	15.0
13	9.0	4.0	4.0	3.0	4.0	3.0	8.0	9.0	12.0	19.0	18.0	15.0
14	9.0	5.0	3.0	4.0	4.0	3.0	7.0	9.0	10.0	18.0	18.0	15.0
15	10.0	4.0	3.0	4.0	4.0	4.0	9.0	9.0	10.0	18.0	18.0	15.0
16	9.0	5.0	3.0	4.0	3.0	4.0	7.0	9.0	12.0	20.0	17.0	14.0
17	10.0	4.0	2.0	4.0	3.0	4.0	7.0	11.0	12.0	19.0	17.0	14.0
18	10.0	4.0	5.0	4.0	3.0	5.0	7.0	11.0	13.0	20.0	18.0	14.0
19	12.0	4.0	5.0	3.0	3.0	7.0	7.0	12.0	14.0	19.0	20.0	15.0
20	10.0	4.0	4.0	2.0	3.0	7.0	7.0	14.0	14.0	20.0	20.0	12.0
21	10.0	4.0	4.0	3.0	4.0	5.0	8.0	15.0	14.0	20.0	20.0	14.0
22	9.0	4.0	2.0	3.0	4.0	5.0	8.0	15.0	14.0	21.0	20.0	14.0
23	6.0	3.0	3.0	4.0	4.0	5.0	8.0	14.0	16.0	21.0	21.0	15.0
24	6.0	3.0	3.0	4.0	4.0	5.0	7.0	10.0	15.0	20.0	20.0	14.0
25	6.0	3.0	4.0	2.0	4.0	6.0	7.0	10.0	14.0	19.0	20.0	12.0
26	6.0	3.0	4.0	2.0	5.0	6.0	9.0	12.0	14.0	19.0	21.0	12.0
27	6.0	4.0	4.0	3.0	5.0	6.0	7.0	14.0	14.0	19.0	21.0	12.0
28	6.0	4.0	4.0	3.0	4.0	6.0	7.0	14.0	14.0	19.0	18.0	12.0
29	6.0	3.0	4.0	4.0	5.0	6.0	7.0	14.0	14.0	19.0	18.0	10.0
30	6.0	3.0	4.0	4.0	---	7.0	7.0	14.0	15.0	19.0	20.0	10.0
31	6.0	---	3.0	4.0	---	10.0	---	15.0	---	19.0	18.0	---
MONTH	9.0	4.5	4.5	3.5	3.5	5.0	8.0	10.5	14.0	18.5	18.5	14.5
YEAR	MAX	21.0	MIN	2.0	MEAN	9.5						

06646610 NORTH PLATTE RIVER BELOW DEER CREEK, NEAR GLENROCK, WY

LOCATION.--Lat 42°52'20", long 105°50'42", in NE¼NW¼SW¼ sec.34, T.34 N., R.75 W., Converse County, Hydrologic Unit 10180007, 1.2 mi (1.9 km) downstream from Deer Creek and 1.4 mi (2.3 km) northeast of Glenrock.

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: January 1969 to current year.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Records furnished by Wyoming Game and Fish Commission and Pacific Power and Light Company. Recorder clock stopped May 12-13 (range in temperature 12.0°C to 16.0°C), July 11-15 (range in temperature 18.5°C to 23.5°C).

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 27.0°C July 4, 1970; minimum, 0.0°C on many days during winter period each year.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 24.0°C Aug. 24; minimum, 0.0°C on many days during November to March.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	15.0	11.5	10.5	8.5	5.0	0.0	0.5	0.0	4.5	1.5	8.5	4.5
2	17.0	12.0	10.5	9.0	5.0	1.0	2.0	0.0	4.5	1.0	6.5	3.5
3	16.5	15.0	10.5	8.5	4.5	2.0	3.5	1.0	3.0	0.5	4.0	1.0
4	16.0	14.5	10.5	9.0	6.0	3.0	4.0	2.0	1.0	0.0	1.5	0.0
5	16.5	13.5	10.0	8.5	5.5	4.5	4.0	1.5	4.0	0.0	3.0	0.5
6	17.0	14.5	9.5	8.5	6.0	3.5	3.5	1.0	3.5	0.5	4.5	0.5
7	18.0	14.5	9.0	6.5	5.5	4.0	2.0	0.5	5.0	1.0	6.0	2.0
8	14.5	11.0	8.5	6.5	6.5	4.0	3.0	0.5	5.5	2.0	8.5	4.5
9	11.5	10.5	7.0	5.5	8.0	5.0	4.5	2.0	4.5	2.0	9.0	6.0
10	13.5	10.5	5.5	4.5	8.0	6.5	4.0	1.5	4.5	1.0	9.5	6.0
11	14.5	11.5	5.0	3.5	8.0	4.5	3.5	1.0	4.5	1.0	8.5	3.0
12	14.0	12.0	4.5	2.0	5.5	3.5	3.5	1.0	4.0	1.0	3.5	1.0
13	14.0	11.5	6.0	3.5	4.5	0.5	4.0	1.0	4.0	0.5	3.5	0.0
14	11.5	10.0	6.5	5.0	1.0	0.0	3.0	0.5	4.5	1.0	3.5	2.0
15	11.0	8.0	8.0	6.0	1.5	0.0	3.0	1.0	3.5	0.5	4.5	2.0
16	11.5	9.5	8.5	6.5	4.0	1.5	4.5	1.5	2.0	0.0	6.5	3.0
17	13.0	9.5	8.0	6.0	3.0	0.5	4.5	1.5	4.0	0.5	8.5	5.0
18	13.5	10.5	7.0	5.5	5.0	1.5	3.0	1.5	3.0	0.5	10.0	6.0
19	13.5	11.0	5.5	3.5	5.0	3.5	3.5	0.5	4.5	1.0	9.5	6.0
20	13.5	11.0	3.5	1.5	4.5	2.0	4.0	1.0	4.5	1.5	6.0	3.5
21	13.5	11.5	2.0	1.0	4.5	2.0	4.5	1.5	4.0	0.5	5.0	3.0
22	11.5	9.0	3.5	1.0	4.5	2.0	4.0	1.5	3.5	0.0	7.0	3.5
23	9.0	5.5	3.5	1.5	4.0	2.0	3.5	1.5	3.5	0.0	8.5	5.0
24	6.5	4.5	4.0	2.0	4.5	1.5	2.0	0.5	4.5	0.5	8.5	6.0
25	6.0	3.5	3.5	2.0	4.0	1.5	3.0	0.0	4.0	0.5	7.0	5.5
26	7.0	3.5	2.0	0.0	3.5	1.5	3.0	0.5	5.0	0.5	8.0	5.0
27	7.0	6.0	0.0	0.0	3.0	1.5	3.5	1.0	5.0	1.5	8.5	5.5
28	7.0	6.0	0.5	0.0	3.5	1.5	4.5	0.5	5.5	4.0	8.5	5.5
29	8.5	5.5	0.0	0.0	4.5	1.5	5.0	1.5	6.0	4.0	8.0	5.5
30	9.5	6.5	0.5	0.0	4.5	3.0	3.0	1.5	---	---	9.0	5.0
31	10.0	9.0	---	---	2.0	0.0	3.5	1.0	---	---	10.0	5.5
MONTH	18.0	3.5	10.5	0.0	8.0	0.0	5.0	0.0	6.0	0.0	10.0	0.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	10.5	8.0	14.5	9.5	18.5	15.0	21.5	18.0	18.5	17.0	20.0	15.5
2	10.0	8.0	15.5	12.0	18.5	15.0	20.0	18.0	17.0	15.5	19.5	16.0
3	11.5	6.5	16.5	13.0	20.0	15.5	20.5	15.5	17.0	14.5	20.0	15.5
4	13.5	8.5	15.5	14.0	20.5	16.5	22.0	17.0	17.0	15.0	20.5	16.0
5	14.5	10.0	14.5	11.5	21.0	16.0	23.5	19.0	18.5	15.0	20.0	16.5
6	13.5	9.5	14.0	11.0	19.5	16.5	23.0	19.0	19.0	15.5	19.0	16.0
7	12.0	9.0	15.5	12.0	21.5	16.0	22.0	18.0	19.0	16.0	18.0	15.0
8	11.5	9.5	17.0	13.5	21.5	17.0	22.0	18.5	18.5	15.5	15.0	13.0
9	13.5	9.5	18.5	15.0	21.5	18.5	23.0	18.5	18.5	15.5	15.5	11.5
10	10.5	8.5	18.0	15.0	21.5	17.0	23.5	19.0	18.0	15.5	17.0	13.0
11	14.0	9.0	16.5	15.5	20.0	16.5	---	---	18.5	15.0	18.0	14.0
12	15.5	10.5	---	---	16.5	13.5	---	---	18.0	15.5	16.0	14.5
13	14.0	11.5	18.5	---	15.0	13.0	---	---	17.0	15.5	16.5	14.0
14	13.0	9.5	20.0	16.0	13.0	8.5	---	---	18.0	15.0	16.5	14.0
15	14.5	10.5	18.5	13.5	14.0	7.0	23.0	---	18.5	15.5	16.5	14.5
16	14.0	8.0	16.0	11.0	14.0	11.5	23.0	18.0	18.0	15.5	17.0	14.0
17	10.0	6.5	19.0	13.5	13.5	11.0	23.5	19.0	17.0	15.5	17.0	15.0
18	12.0	9.5	21.0	16.5	13.5	10.5	21.5	19.5	20.0	16.0	18.5	15.5
19	13.0	10.0	20.5	16.5	16.5	10.5	21.5	18.5	21.5	18.0	16.5	14.0
20	14.0	10.0	19.0	16.5	19.0	13.5	20.0	18.0	21.0	18.0	15.5	13.0
21	14.5	11.0	18.0	15.5	21.0	15.5	22.0	17.0	21.0	18.5	16.5	13.5
22	15.5	12.0	16.5	13.5	19.5	17.0	23.5	19.0	22.0	18.0	16.5	14.0
23	14.0	13.0	13.5	10.0	18.5	15.5	23.0	19.0	21.5	18.5	16.5	14.5
24	15.5	11.0	13.5	9.5	16.5	13.5	23.5	19.0	24.0	18.5	16.5	14.0
25	14.5	12.0	16.0	11.5	17.0	13.5	21.0	18.5	21.0	17.0	16.0	14.5
26	12.0	9.5	17.0	13.0	17.0	13.5	18.5	16.5	20.5	18.0	15.5	14.0
27	12.0	8.5	19.0	14.0	18.0	13.5	19.0	16.0	19.0	16.0	15.0	13.0
28	10.0	8.5	19.5	15.5	19.5	11.5	19.0	16.0	19.5	15.0	15.5	12.0
29	10.0	9.0	18.5	16.0	20.0	16.0	18.5	16.0	20.0	16.0	15.5	13.0
30	11.5	8.0	17.0	15.0	21.0	16.0	18.0	16.0	20.0	17.0	16.0	13.5
31	---	---	18.0	14.0	---	---	19.0	15.5	19.0	16.5	---	---
MONTH	15.5	6.5	21.0	9.5	21.5	7.0	23.5	15.5	24.0	14.5	20.5	11.5

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY

LOCATION.--Lat 42°50'10", long 105°45'30", in NW¼NE¼ sec.17, T.33 N., R.74 W., Converse County, Hydrologic Unit 10180007, on left bank 0.8 mi (1.3 km) downstream from Sand Creek, 1.0 mi (1.6 km) downstream from Dave Johnston powerplant, and 5.8 mi (9.3 km) east of Glenrock city limits.

DRAINAGE AREA (REVISED).--13,538 mi^2 (35,063 km^2), of which 1,173 mi^2 (3,038 km^2) is probably noncontributing. The 3,959 mi^2 (10,254 km^2) in Great Divide Basin is not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1959 to current year.

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,920 ft (1,500 m), from topographic map. Prior to Oct. 1, 1965, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Flow regulated by Seminoe, Pathfinder, and Alcova Reservoirs. (See sta 06635500, 06640500, 06641500.) Slight regulation 1.0 mi (1.6 km) upstream by storage pond for Dave Johnston powerplant, capacity, 755 acre-ft (0.931 hm^3). Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,000 ft^3/s (453 m^3/s) May 14, 1965, gage height, 6.10 ft (1.859 m); minimum daily, 176 ft^3/s (4.98 m^3/s) Dec. 11, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,350 ft^3/s (123 m^3/s) Aug. 2, gage height, 4.03 ft (1.228 m); minimum daily, 535 ft^3/s (15.2 m^3/s) Dec. 15, Jan. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1520	1660	806	834	1060	1120	1020	983	1500	1850	3780	1820
2	1430	1660	1410	535	1060	1110	973	1050	1460	1850	3820	1810
3	1410	1640	1330	558	1080	994	952	1150	1410	1870	3740	1820
4	1420	1630	1200	715	952	1090	952	1210	1330	1880	3600	1820
5	1410	1630	1080	863	605	1000	952	1330	1320	1880	3600	1820
6	1410	1190	1080	942	581	1020	983	1250	1320	1880	3580	1840
7	1400	1620	1070	942	778	1100	1020	1250	1320	1840	3540	1850
8	1400	1630	1080	892	973	1070	1000	1180	1330	1850	3520	1850
9	1410	1640	1060	952	1230	1070	983	1190	1300	1850	3540	1900
10	1400	1630	983	1020	1280	1060	952	1230	1270	1840	3500	2060
11	1510	1630	983	1000	1190	1060	973	1230	1280	1870	3520	2140
12	1560	1630	973	952	1230	1020	1000	1250	1260	1900	3520	2180
13	1580	1620	973	983	1190	973	1130	1170	1270	1900	3500	2180
14	1560	1660	834	994	1200	1070	1250	1100	1400	1710	3500	2170
15	1590	1600	535	942	1190	1040	1320	1170	1510	1680	3500	2150
16	1640	1600	581	1040	1260	1020	1430	1210	1660	1610	3440	2170
17	1660	1620	605	1080	1150	1020	1430	1130	1740	1590	3200	2140
18	1640	1600	558	1080	1080	1020	1150	1080	1780	1580	2300	2120
19	1640	1600	806	1020	1060	1040	1050	1230	1770	1580	1680	2200
20	1540	1590	902	1020	1090	1070	994	1280	1750	1680	1590	2120
21	932	1580	922	1000	1040	1040	973	1540	1700	1660	1590	2120
22	778	1370	932	1020	994	1040	973	1670	1680	1670	1680	2090
23	824	1320	922	1000	1090	1020	1020	2020	1800	1640	1680	2150
24	872	1150	922	1020	1100	1020	1040	2120	1840	1680	1700	2120
25	863	1100	983	983	1130	1040	1040	2000	1780	3400	1740	2120
26	1480	1050	983	922	1230	1070	1080	1850	1810	3600	1710	2170
27	1660	1040	1080	922	1130	1040	1110	1780	1800	3620	1720	2280
28	1670	1070	952	1020	1120	1040	1070	1700	1780	3580	1720	2120
29	1630	1000	932	1070	1120	1050	1040	1620	1770	3560	1820	1970
30	1630	724	902	1070	---	1020	1020	1620	1780	3500	1810	1900
31	1630	---	973	1020	---	1020	---	1590	---	3560	1810	---
TOTAL	44099	43484	29352	29411	31193	32367	31880	43183	46720	67360	84950	61200
MEAN	1423	1449	947	949	1076	1044	1063	1393	1557	2173	2740	2040
MAX	1670	1660	1410	1080	1280	1120	1430	2120	1840	3620	3820	2280
MIN	778	724	535	535	581	973	952	983	1260	1580	1590	1810
AC-FT	87470	86250	58220	58340	61870	64200	63230	85650	92670	133600	168500	121400

CAL YR 1975 TOTAL 595621 MEAN 1632 MAX 3810 MIN 535 AC-FT 1181000
WTR YR 1976 TOTAL 545199 MEAN 1490 MAX 3820 MIN 535 AC-FT 1091000

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at bridge on county road 0.9 mi (1.4 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1961 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: December 1960 to September 1976 (discontinued).
WATER TEMPERATURES: December 1960 to September 1976 (discontinued).

REMARKS.--No appreciable inflow between sampling point and discharge station.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,670 micromhos June 17, 1967; minimum daily, 302 micromhos Jan. 26, 1972.
WATER TEMPERATURES: Maximum, 34.0°C July 2, 1970; minimum, 0.0°C on several days during winter periods in 1960-64.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 852 micromhos Oct. 23; minimum daily, 512 micromhos May 8, July 28.
WATER TEMPERATURE: Maximum, 23.5°C July 12, 27; minimum, 2.0°C on several days during November to January and March.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
OCT 17...	1220	1660	14.0	240	100	61	22	45	1.3	3.7	170	0
NOV 25...	1445	1100	4.5	260	110	65	23	52	1.4	3.3	180	0
DEC 30...	1245	853	3.5	260	110	69	22	52	1.4	3.5	180	0
JAN 20...	1500	952	.0	--	--	--	--	--	--	--	--	--
FEB 03...	1130	1070	3.0	250	110	63	22	53	1.5	3.3	160	3
23...	1410	1080	7.0	240	92	62	21	52	1.5	3.7	180	0
MAR 09...	1230	1070	12.0	270	120	68	23	59	1.6	2.1	170	6
APR 13...	1530	1180	11.0	--	--	--	--	--	--	--	--	--
15...	1310	1370	12.5	210	87	54	19	41	1.2	3.3	150	0
MAY 12...	1410	1280	15.5	190	75	50	17	40	1.2	3.3	140	0
JUN 11...	1130	1270	21.5	250	110	62	23	53	1.5	3.0	160	6
JUL 07...	1145	1850	21.0	230	110	57	20	39	1.1	2.8	150	0
AUG 10...	1650	3500	20.0	210	79	53	18	36	1.1	3.3	160	0
SEP 15...	1430	2200	18.5	220	81	56	20	41	1.2	3.0	170	0

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 17...	139	180	13	.5	8.1	421	.57	1890	.20	.05	--	--
NOV 25...	148	200	13	.5	7.8	458	.62	1360	.32	.07	--	--
DEC 30...	148	210	16	.5	10	471	.64	1080	.38	.07	--	--
JAN 20...	--	--	--	--	--	--	--	--	--	--	11	28
FEB 03...	136	210	14	.5	9.9	460	.63	1330	.43	.08	--	--
23...	148	200	14	.5	10	450	.61	1310	.59	.11	--	--
MAR 09...	149	230	16	.5	9.0	495	.67	1430	.34	.10	--	--
APR 13...	--	--	--	--	--	--	--	--	--	--	144	459
15...	123	170	13	.4	12	383	.52	1420	.52	.15	--	--
MAY 12...	115	150	11	.4	8.4	355	.48	1230	.18	.13	--	--
JUN 11...	141	210	13	.5	6.1	450	.61	1540	.16	.09	--	--
JUL 07...	123	170	9.3	.5	9.8	383	.52	1910	.45	.06	--	--
AUG 10...	131	140	7.4	.5	11	350	.48	3310	.86	.10	--	--
SEP 15...	139	160	11	.5	11	388	.53	2300	.38	.06	--	--

06646800 NORTH PLATTE RIVER NEAR GLENROCK, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	630	624	682	694	689	781	735	635	654	594	540	599
2	696	669	739	698	689	781	740	635	655	586	528	582
3	697	674	740	700	689	775	735	635	650	609	555	600
4	694	680	740	696	683	775	737	636	646	594	530	596
5	700	690	742	690	721	775	719	551	651	594	525	591
6	697	681	743	661	722	776	762	525	686	598	530	599
7	692	676	754	661	717	777	765	527	686	599	529	598
8	676	681	753	664	726	734	771	512	686	594	524	594
9	642	651	781	672	726	731	780	535	669	570	535	584
10	685	665	786	666	721	731	777	532	683	585	533	574
11	680	669	781	672	715	737	768	530	676	590	525	581
12	685	655	784	672	717	735	766	530	675	585	522	577
13	695	646	782	674	715	753	675	615	678	582	528	588
14	691	651	781	674	708	731	603	658	665	582	525	591
15	689	646	787	674	726	733	608	657	665	595	525	583
16	687	656	806	671	726	747	622	657	672	590	517	578
17	662	634	802	675	726	749	613	661	661	599	530	582
18	699	639	798	675	726	743	611	646	665	595	524	600
19	694	650	802	675	726	743	612	636	668	595	532	592
20	696	651	800	670	717	749	678	630	661	604	537	587
21	694	653	721	708	717	734	645	624	618	603	535	584
22	826	647	721	708	717	735	753	615	623	584	530	589
23	852	647	718	708	708	735	770	606	623	520	533	587
24	850	698	797	708	708	735	753	596	627	515	588	---
25	828	739	717	703	708	740	748	617	624	513	595	---
26	839	745	718	708	713	745	746	612	634	515	592	---
27	841	756	724	706	713	742	714	603	618	520	600	---
28	792	759	725	703	743	746	688	602	629	512	602	---
29	658	759	691	677	777	727	634	642	589	521	603	---
30	672	759	699	682	---	735	639	646	588	520	597	---
31	669	---	698	682	---	739	---	642	---	520	598	---
MONTH	716	678	752	685	717	747	706	605	651	570	547	---
YEAR	MAX	852	MIN	512	MEAN	665						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	11.5	2.0	3.0	5.0	3.0	8.0	14.0	18.0	21.5	20.0	19.0
2	16.5	11.0	3.0	2.5	5.0	2.5	7.5	14.5	18.5	21.0	21.0	19.0
3	16.0	12.0	3.5	2.5	4.5	2.0	7.0	15.0	19.0	21.5	21.0	20.0
4	16.5	11.5	3.0	2.0	4.0	3.0	8.0	14.5	20.0	22.0	22.0	20.0
5	17.0	11.0	3.0	2.0	3.0	3.0	8.0	15.0	20.0	22.0	22.0	20.0
6	18.0	11.0	3.5	2.0	2.5	3.5	9.5	15.0	19.0	22.0	21.5	19.0
7	16.0	11.5	3.5	2.0	4.5	3.5	10.0	15.5	20.0	21.5	22.0	19.5
8	16.0	11.0	3.5	2.5	4.5	8.0	12.0	16.0	20.0	22.0	22.0	18.0
9	15.0	10.5	3.0	2.5	5.0	7.5	10.5	16.0	20.0	22.0	18.0	17.0
10	14.5	10.0	3.5	2.0	5.0	7.0	11.0	16.0	19.0	23.0	20.0	18.0
11	14.0	9.5	4.5	2.5	5.5	6.0	11.0	15.0	20.0	23.0	20.0	18.0
12	14.0	9.0	5.0	2.5	6.0	5.0	12.0	15.5	19.0	23.5	21.0	18.0
13	13.0	8.0	5.0	3.0	4.0	4.5	12.0	16.5	19.0	22.5	22.0	18.0
14	13.0	8.0	4.5	3.5	4.0	5.0	12.5	18.0	17.0	22.0	23.0	19.0
15	13.0	9.0	3.0	3.5	4.0	5.0	12.5	19.0	16.0	23.0	23.0	18.5
16	14.0	9.0	3.0	4.0	4.5	7.0	11.0	20.0	16.0	23.0	23.0	18.0
17	14.0	8.0	4.0	4.0	4.5	8.5	12.0	20.0	16.5	23.0	19.0	18.0
18	13.5	4.5	7.0	4.5	4.0	7.0	12.0	20.0	17.0	23.0	18.5	17.0
19	13.5	4.0	6.0	4.5	4.0	7.0	12.5	19.0	19.0	22.5	19.5	18.0
20	14.0	4.0	6.0	4.5	4.0	5.5	12.0	20.0	19.0	23.0	21.0	18.0
21	14.0	4.0	5.0	4.0	4.0	6.0	15.5	18.0	19.0	22.0	22.0	19.0
22	13.5	4.5	4.5	4.0	4.0	6.0	14.0	17.0	19.0	23.0	22.0	17.0
23	11.0	4.5	4.0	3.5	4.0	6.5	14.0	17.0	19.5	22.0	21.0	18.0
24	11.0	3.5	4.0	3.0	4.5	7.0	14.0	14.0	19.5	22.0	21.0	---
25	11.5	3.5	4.0	3.0	4.5	6.0	12.0	14.0	19.0	23.0	21.0	---
26	12.0	3.0	4.0	3.0	5.0	6.0	12.5	15.0	18.5	23.0	18.0	---
27	13.0	2.5	4.0	3.5	5.0	6.5	13.0	17.0	20.0	23.5	17.0	---
28	13.5	2.5	4.0	4.0	4.0	6.0	13.5	17.0	20.0	23.0	19.0	---
29	13.0	2.0	4.0	6.0	4.0	7.0	13.5	18.0	21.0	23.0	19.0	---
30	12.0	2.0	3.5	5.0	---	7.0	14.0	18.0	21.0	22.0	21.0	---
31	11.5	---	3.0	5.0	---	7.5	---	18.5	---	22.5	20.0	---
MONTH	14.0	7.0	4.0	3.5	4.5	5.5	11.5	16.5	19.0	22.5	20.5	---
YEAR	MAX	23.5	MIN	2.0	MEAN	12.0						

06647020 NORTH PLATTE RIVER NEAR CAREYHURST, WY

LOCATION.--Lat 42°51'21", long 105°40'00", in NW¼SE¼SW¼ sec.6, T.33 N., R.73 W., Converse County, Hydrologic Unit 10180007, 0.5 mi (0.8 km) upstream from Box Elder Creek and 0.6 mi (1.0 km) northeast of Careyhurst.

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: January 1969 to current year.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Records furnished by Wyoming Game and Fish Commission and Pacific Power and Light Company. No record Feb. 6 to Mar. 4.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 32.0°C July 4, 1970; minimum, -1.0°C Nov. 21, 1975.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum, 21.5°C on several days during July; minimum, -1.0°C Nov. 21.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	10.0	8.5	5.5	0.0	0.0	0.0	0.0	0.0	0.0	---	---
2	14.0	10.0	8.5	5.5	1.0	0.0	0.0	0.0	0.0	0.0	---	---
3	14.5	10.0	8.5	6.0	2.0	0.5	0.0	0.0	0.0	0.0	---	---
4	13.0	10.5	8.5	6.0	4.5	1.5	0.0	0.0	0.0	0.0	---	---
5	13.5	9.5	8.5	5.5	3.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
6	13.5	10.5	8.0	5.5	3.0	0.0	0.0	0.0	---	---	0.5	0.0
7	14.5	11.0	7.0	5.5	2.0	1.0	0.0	0.0	---	---	3.0	0.0
8	11.5	7.0	6.5	4.5	4.0	2.0	0.0	0.0	---	---	5.0	0.0
9	8.5	5.5	5.0	3.0	4.5	2.0	0.0	0.0	---	---	5.5	1.0
10	10.5	6.5	3.5	1.5	1.5	0.0	0.0	0.0	---	---	6.0	1.5
11	12.0	8.0	3.0	0.5	3.0	1.5	0.0	0.0	---	---	5.5	1.0
12	12.0	9.5	2.0	0.0	3.5	0.0	0.0	0.0	---	---	2.0	0.0
13	11.0	9.5	4.0	1.0	2.0	0.0	0.0	0.0	---	---	2.0	0.0
14	10.0	7.0	4.5	2.0	0.0	0.0	0.0	0.0	---	---	1.5	0.0
15	9.5	6.0	6.0	3.5	0.0	0.0	0.0	0.0	---	---	3.0	0.0
16	10.0	6.5	6.5	4.5	0.0	0.0	0.0	0.0	---	---	5.5	0.5
17	10.5	7.0	5.5	3.5	0.0	0.0	0.0	0.0	---	---	8.0	3.0
18	11.0	8.5	4.5	3.0	0.0	0.0	0.0	0.0	---	---	9.0	4.5
19	11.5	9.0	3.0	0.5	0.0	0.0	0.0	0.0	---	---	7.0	4.5
20	11.5	9.0	0.5	0.0	0.0	0.0	0.0	0.0	---	---	4.5	1.5
21	10.5	8.0	0.5	-1.0	0.0	0.0	0.0	0.0	---	---	4.0	0.5
22	9.5	6.5	1.0	0.0	0.0	0.0	0.0	0.0	---	---	6.0	0.5
23	6.5	2.0	1.5	0.0	0.0	0.0	0.0	0.0	---	---	8.0	3.0
24	4.0	1.5	2.0	0.5	0.0	0.0	0.0	0.0	---	---	7.0	3.5
25	3.0	0.0	2.0	0.5	0.0	0.0	0.0	0.0	---	---	6.0	3.5
26	5.5	1.0	0.5	0.0	0.0	0.0	0.0	0.0	---	---	6.5	2.0
27	5.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	6.0	3.0
28	6.0	4.0	0.0	0.0	0.0	0.0	0.0	0.0	---	---	6.5	3.5
29	6.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	---	---	6.0	3.5
30	8.0	4.5	0.0	0.0	0.0	0.0	0.0	0.0	---	---	7.0	3.0
31	8.5	6.5	---	---	0.0	0.0	0.0	0.0	---	---	9.5	3.5
MONTH	14.5	0.0	8.5	-1.0	4.5	0.0	0.0	0.0	---	---	9.5	0.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	9.5	5.0	13.0	6.0	18.5	13.0	20.0	16.0	18.0	16.0	19.0	14.5
2	8.5	5.5	13.5	7.0	19.0	13.5	18.5	16.0	16.0	15.0	18.5	15.0
3	10.0	4.0	13.5	8.0	19.5	14.0	19.5	14.0	16.5	14.0	19.0	14.5
4	11.0	5.0	13.5	8.5	19.5	14.0	21.0	15.5	16.5	14.5	19.5	15.0
5	12.0	6.5	10.5	7.0	21.0	14.5	21.5	16.5	18.0	14.0	19.0	15.0
6	10.0	7.0	11.5	7.0	20.0	15.0	21.0	17.0	18.5	15.0	18.0	15.0
7	9.5	6.0	13.0	8.0	20.5	14.5	20.5	17.0	18.5	15.0	16.5	13.5
8	11.0	6.5	15.0	8.0	21.0	14.5	20.5	16.5	18.0	15.0	13.5	11.5
9	11.5	7.0	15.5	9.5	21.0	16.0	21.0	16.0	18.0	14.5	15.0	10.5
10	9.0	6.5	14.5	10.0	20.5	15.0	21.5	16.5	17.0	14.5	16.0	12.0
11	12.0	6.0	13.0	10.5	19.5	15.0	20.5	18.0	18.0	14.0	16.5	13.5
12	11.5	8.0	11.0	8.0	15.0	12.0	20.0	17.0	17.0	14.5	16.0	14.5
13	11.0	8.5	15.0	7.0	17.0	11.0	21.5	16.5	16.5	14.5	16.0	13.5
14	10.0	5.5	17.0	10.0	11.0	7.0	21.5	17.0	16.5	14.0	16.5	14.0
15	11.0	6.0	14.0	8.0	14.0	6.5	21.0	17.0	18.0	14.5	17.0	14.5
16	9.0	3.5	13.0	6.0	14.0	10.5	21.0	16.0	17.0	14.0	17.0	14.0
17	6.5	3.5	16.0	8.0	12.0	10.0	21.5	17.0	16.0	14.5	18.0	14.5
18	8.5	4.5	18.5	11.0	13.0	9.0	20.5	18.5	18.5	15.0	18.0	15.0
19	8.5	5.0	19.0	13.0	16.0	10.0	20.5	17.0	20.5	16.0	16.0	13.0
20	10.5	4.5	16.5	13.0	19.0	12.0	19.0	16.5	20.0	16.5	15.5	12.0
21	11.0	6.0	15.5	11.5	20.0	15.0	21.0	16.0	20.5	15.5	16.5	13.0
22	11.0	6.0	13.5	10.0	18.5	16.0	21.0	17.0	20.0	16.5	16.5	14.0
23	9.0	6.0	10.0	7.0	16.0	14.0	21.5	17.0	19.5	16.5	16.0	14.0
24	11.5	4.5	13.0	6.5	15.5	11.5	21.5	17.0	19.5	15.5	15.5	14.0
25	10.0	6.0	14.5	10.0	16.0	11.5	19.0	16.5	20.0	16.0	15.5	13.5
26	8.5	5.5	16.0	11.0	16.5	11.5	18.5	15.5	19.0	15.5	14.5	13.0
27	9.0	4.0	18.0	11.5	17.0	11.5	18.5	15.0	17.0	14.0	14.0	11.5
28	8.5	5.0	18.5	13.0	19.0	13.0	18.5	15.0	18.0	13.5	14.5	11.0
29	7.0	5.5	18.5	13.5	19.0	14.5	17.0	15.0	19.0	14.5	15.0	11.0
30	10.5	5.0	16.5	12.0	20.5	15.0	16.0	14.0	19.0	15.5	---	11.5
31	---	---	18.0	11.5	---	---	18.5	14.5	18.5	15.5	---	---
MONTH	12.0	3.5	19.0	6.0	21.0	6.5	21.5	14.0	20.5	13.5	19.5	10.5

06647500 BOX ELDER CREEK AT BOXELDER, WY

LOCATION.--Lat 42°36'44", long 105°51'29", in NE¼NE¼SW¼ sec.32, T.31 N., R.75 W., Converse County, Hydrologic Unit 10180007, on left bank at Hiser Ranch (old Boxelder Post Office), 0.8 mi (1.3 km) downstream from Snowshoe Creek, and 17 mi (27 km) south of Glenrock. Prior to July 22, 1976, at site 400 ft (122 m) downstream.

DRAINAGE AREA.--63.0 mi^2 (163.2 km^2).

PERIOD OF RECORD.--April 1946 to September 1951, October 1961 to September 1967, October 1971 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,710 ft (2,045 m), from topographic map. Prior to June 7, 1946, nonrecording gage, and June 8, 1946, to July 21, 1976, water-stage recorder at site 400 ft (122 m) downstream at different datum.

REMARKS.--Records poor. Diversions above station for irrigation of about 60 acres (24 hm^2), of which about 40 acres (16 hm^2) lies below station.

AVERAGE DISCHARGE.--16 years, 39.6 ft^3/s (1.121 m^3/s), 28,690 acre-ft/yr (35.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,530 ft^3/s (128 m^3/s) May 14, 1965, gage height, 8.58 ft (2.615 m), datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 250 ft^3/s (7.08 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 23	1800	*437	12.4	3.98	1.213

Minimum daily discharge, 0.18 ft^3/s (0.005 m^3/s) Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.80	1.7	2.0	2.0	2.6	3.4	10	115	181	32	8.1	.27
2	.80	1.8	2.3	2.1	2.6	3.0	11	150	157	29	8.6	.25
3	.80	1.9	2.6	2.0	2.5	2.9	12	172	139	32	6.4	.22
4	.90	2.0	2.5	2.1	2.3	2.8	14	181	120	26	4.7	.22
5	.90	1.9	2.4	2.6	2.2	2.8	20	201	109	23	4.2	.22
6	.90	2.0	2.2	2.3	2.2	3.0	20	203	108	21	3.8	.20
7	.90	2.2	2.2	2.1	2.4	3.3	25	206	91	19	3.1	.20
8	.90	2.1	2.3	2.4	2.6	3.7	30	208	77	16	2.5	.22
9	1.0	2.0	2.6	2.5	2.9	3.8	35	230	66	14	2.0	.25
10	1.0	2.0	2.8	2.5	3.0	3.9	39	265	59	13	1.7	.22
11	1.0	1.9	2.6	2.5	2.9	3.8	44	283	50	13	1.5	.20
12	1.0	1.8	2.6	2.5	3.0	3.5	62	276	43	11	1.4	.20
13	1.0	1.8	2.6	2.3	3.2	3.6	73	248	42	10	1.2	.22
14	1.1	2.0	2.3	2.4	3.1	3.6	74	269	61	10	1.1	.22
15	1.1	2.2	2.2	2.5	3.1	3.4	85	322	87	7.9	1.0	.25
16	1.2	2.1	2.3	2.6	3.0	3.9	77	278	93	7.5	.84	.25
17	1.4	2.0	2.0	2.7	2.9	4.5	62	261	91	6.8	.73	.20
18	1.5	1.9	2.1	2.6	2.9	4.9	57	261	102	6.5	.59	.18
19	1.6	1.8	2.2	2.5	3.0	5.0	59	283	101	6.2	.59	.25
20	1.6	1.7	2.2	2.5	2.9	4.8	65	308	87	7.5	.46	.39
21	1.6	1.6	2.1	2.6	2.9	5.1	87	324	81	10	.39	.46
22	1.7	1.7	2.1	2.6	3.0	5.8	108	346	76	6.8	.32	.50
23	1.9	1.8	2.0	2.7	3.1	6.8	117	418	81	5.3	.25	.78
24	2.2	1.7	1.9	2.5	3.3	7.6	108	369	77	4.5	.25	.90
25	2.1	1.7	2.2	2.3	3.5	7.7	124	342	62	4.0	.25	.84
26	2.1	1.6	2.2	2.2	3.7	7.3	146	301	55	4.4	.22	1.2
27	2.3	1.6	2.3	2.4	3.6	7.7	129	269	49	7.6	.25	1.6
28	2.2	1.7	2.2	2.5	3.3	7.5	126	246	43	6.1	.25	1.5
29	2.1	1.7	2.2	2.6	3.4	7.0	128	234	39	4.4	.22	1.2
30	2.0	1.8	2.4	2.6	---	7.0	113	263	36	3.8	.22	.96
31	1.9	---	2.3	2.6	---	7.9	---	212	---	4.0	.25	---
TOTAL	43.50	55.7	70.9	75.3	85.1	151.0	2060	8044	2463	372.3	57.38	14.57
MEAN	1.40	1.86	2.29	2.43	2.93	4.87	68.7	259	82.1	12.0	1.85	.49
MAX	2.3	2.2	2.8	2.7	3.7	7.9	146	418	181	32	8.6	1.6
MIN	.80	1.6	1.9	2.0	2.2	2.8	10	115	36	3.8	.22	.18
AC-FT	86	110	141	149	169	300	4090	15960	4890	738	114	29

CAL YR 1975 TOTAL 13286.01 MEAN 36.4 MAX 474 MIN 0 AC-FT 26350
WTR YR 1976 TOTAL 13492.75 MEAN 36.9 MAX 418 MIN .18 AC-FT 26760

06647890 LITTLE BOX ELDER CREEK NEAR CAREYHURST, WY

LOCATION.--Lat 42°45'04", long 105°44'25", in SE¼SW¼SE¼ sec.8, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, on right bank 4.6 mi (7.4 km) southwest of Barber Ranch and 7.6 mi (12.2 km) southwest of Careyhurst.

DRAINAGE AREA.--7.18 mi^2 (18.6 km^2).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,670 ft (1,728 m), from topographic map.

REMARKS.--Records poor except those for May and June, which are good. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21 ft^3/s (0.595 m^3/s) June 18, 1975, gage height, 1.31 ft (0.399 m); maximum gage height, 1.36 ft (0.415 m) Mar. 27, 1975 (backwater from ice); minimum daily discharge, 0.43 ft^3/s (0.012 m^3/s) Oct. 2, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 19 ft^3/s (0.538 m^3/s) May 23, gage height, 1.23 ft (0.375 m); minimum daily, 0.43 ft^3/s (0.012 m^3/s) Oct. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.45	.88	.76	.54	1.0	1.2	1.9	5.1	2.6	1.2	.85	.69
2	.43	.90	.82	.57	.96	1.0	1.9	5.0	2.5	1.5	.79	.64
3	.45	.93	.75	.54	.94	.94	1.8	5.0	2.4	1.3	.74	.66
4	.46	.86	.79	.60	.77	.93	2.4	5.2	2.3	1.3	.74	.59
5	.54	.83	.75	.76	.64	.94	3.4	4.4	2.2	1.2	.74	.59
6	.55	.86	.79	.68	.66	1.0	3.6	4.3	2.2	1.2	.74	.59
7	.59	.86	.72	.58	.73	1.0	3.1	4.0	2.1	1.2	.74	.64
8	.63	.81	.73	.63	.91	1.1	3.8	4.2	2.0	1.2	.69	.64
9	.63	.77	.76	.74	1.3	1.1	5.0	4.3	2.0	1.2	.69	.64
10	.64	.73	.72	.72	1.2	1.2	4.1	4.2	1.9	1.1	.69	.64
11	.65	.70	.70	.75	1.0	1.3	5.0	4.0	1.9	1.1	.69	.64
12	.66	.74	.70	.70	1.1	1.1	5.8	3.3	1.8	1.1	.69	.59
13	.68	.81	.68	.63	1.2	1.1	5.8	3.3	1.8	1.0	.69	.59
14	.70	.82	.61	.67	1.2	1.1	5.0	3.3	3.0	1.0	.69	.59
15	.68	.83	.62	.73	1.1	1.1	5.7	3.7	2.6	.97	.69	.59
16	.80	.84	.64	.83	1.1	1.2	6.0	2.9	1.8	.97	.69	.59
17	.71	.81	.56	.91	1.0	1.3	5.7	2.9	2.0	.97	.64	.54
18	.70	.76	.58	.90	1.0	1.7	5.6	2.9	1.8	.97	.64	.54
19	.69	.70	.62	.81	.96	1.8	5.9	2.7	1.7	.97	.64	.64
20	.69	.72	.61	.85	.91	1.6	6.6	2.7	1.6	.97	.64	.59
21	.70	.64	.60	.88	.88	1.5	7.2	2.6	1.5	.97	.64	.54
22	.74	.71	.60	.91	.90	1.6	7.4	3.1	1.5	.91	.64	.54
23	.90	.71	.59	.91	.97	1.8	7.0	11	1.6	.85	.64	.59
24	.71	.66	.59	.86	1.0	1.9	6.4	6.8	1.4	.79	.64	.59
25	.72	.68	.64	.77	1.1	1.9	6.8	5.6	1.3	.79	.64	.54
26	.71	.62	.66	.64	1.2	1.6	6.7	4.3	1.3	.85	.64	.59
27	.96	.62	.72	.72	1.2	1.6	5.3	3.8	1.3	.85	.69	.54
28	.71	.61	.67	.79	1.3	1.6	4.8	3.4	1.2	.85	.69	.54
29	.77	.62	.64	.90	1.3	1.4	4.5	3.3	1.2	.79	.69	.50
30	1.0	.65	.68	.94	---	1.5	4.3	3.1	1.2	.79	.64	.50
31	.97	---	.67	.96	---	1.7	---	2.9	---	.85	.69	---
TOTAL	21.22	22.68	20.97	23.42	29.53	41.81	148.5	127.3	55.7	31.71	21.35	17.69
MEAN	.68'	.76	.68	.76	1.02	1.35	4.95	4.11	1.86	1.02	.69	.59
MAX	1.0	.93	.82	.96	1.3	1.9	7.4	11	3.0	1.5	.85	.69
MIN	.43	.61	.56	.54	.64	.93	1.8	2.6	1.2	.79	.64	.50
AC-FT	42	45	42	46	59	83	295	252	110	63	42	35

CAL YR 1975 TOTAL 534.10 MEAN 1.46 MAX 11 MIN .43 AC-FT 1060
WTR YR 1976 TOTAL 561.88 MEAN 1.54 MAX 11 MIN .43 AC-FT 1110

06647900 LITTLE BOX ELDER CREEK AT LITTLE BOX ELDER CAVE, NEAR CAREYHURST, WY

LOCATION.--Lat 42°45'38", long 105°43'33", in NE¼SE¼NW¼ sec.9, T.32 N., R.74 W., Converse County, Hydrologic Unit 10180007, on left bank 0.3 mi (0.5 km) southwest of Little Box Elder Cave, 3.6 mi (5.8 km) southwest of Barber Ranch, and 6.6 mi (10.6 km) southwest of Careyhurst.

DRAINAGE AREA.--8.47 mi² (21.9 km²).

PERIOD OF RECORD.--October 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,480 ft (1,670 m), from topograhic map.

REMARKS.--Records good except those for September, which are poor. One small detention reservoir above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23 ft³/s (0.651 m³/s) Sept. 18, 1976, gage height, 1.80 ft (0.549 m), from rating curve extended above 4.1 ft³/s (0.12 m³/s); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23 ft³/s (0.651 m³/s) Sept. 18, gage height, 1.80 ft (0.549 m), from rating curve extended above 4.1 ft³/s (0.12 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							0	2.6	1.1	.08		0
2							0	2.7	1.0	.28		0
3							0	2.7	.87	.25		0
4							0	2.7	.75	.10		0
5							.05	3.1	.64	.05		0
6							1.4	2.6	.69	.02		0
7							.81	2.2	.64	0		0
8							.94	2.0	.49	0		0
9							1.8	2.0	.45	0		0
10							2.3	2.0	.37	0		0
11							2.0	2.0	.31	0		0
12							2.9	1.9	.28	0		0
13							3.1	1.4	.28	0		0
14							3.1	1.4	.94	0		0
15							2.9	1.9	1.8	0		0
16							3.4	1.7	.58	0		0
17							3.4	1.1	.58	0		0
18							3.3	1.1	.64	0		.57
19							3.3	.94	.45	0		.01
20							3.3	.94	.34	0		0
21							3.4	.87	.28	0		0
22							3.6	1.6	.23	0		0
23							3.6	3.3	.28	0		0
24							3.8	4.5	.28	0		0
25							3.6	4.3	.20	0		0
26							4.1	3.8	.18	0		0
27							3.8	3.3	.15	0		0
28							3.4	2.4	.09	0		0
29							3.1	1.9	.06	0		0
30					---		2.6	1.8	.04	0		0
31		---			---		---	1.4	---	0		---
TOTAL	0	0	0	0	0	0	73.00	68.15	14.99	.78	0	.58
MEAN	0	0	0	0	0	0	2.43	2.20	.50	.025	0	.019
MAX	0	0	0	0	0	0	4.1	4.5	1.8	.28	0	.57
MIN	0	0	0	0	0	0	0	.87	.04	0	0	0
AC-FT	0	0	0	0	0	0	145	135	30	1.5	0	1.2

CAL YR 1975 TOTAL 144.32 MEAN .40 MAX 3.9 MIN 0 AC-FT 286
WTR YR 1976 TOTAL 157.50 MEAN .43 MAX 4.5 MIN 0 AC-FT 312

06649000 LA PRELE CREEK NEAR DOUGLAS, WY

LOCATION.--Lat 42°40'52", long 105°37'48", in NW¼SE¼SW¼ sec.5, T.31 N., R.73 W., Converse County, Hydrologic Unit 10180007, on right bank 0.8 mi (1.3 km) upstream from La Prele Reservoir and 13.5 mi (21.7 km) southwest of Douglas.

DRAINAGE AREA.--135 mi^2 (350 km^2).

PERIOD OF RECORD.--August 1919 to current year (no winter records since 1971).

REVISED RECORDS.--WSP 1710: Drainage area. WSP 1918: 1920(M), 1952(M).

GAGE.--Water-stage recorder. Altitude of gage is about 5,600 ft (1,707 m), from nearby line of levels.

REMARKS.--Records fair. Several small reservoirs above station, combined capacity, about 140 acre-ft (0.173 hm^3) for irrigation. Diversions for irrigation of about 4,600 acres (18.6 km^2) above station. Water is imported from La Bonte Creek and Wagon Hound Creek basins into Little La Prele Creek, upstream from the station, for irrigation below La Prele Reservoir.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--52 years (water years 1920-71), 40.4 ft^3/s (1.144 m^3/s), 29,270 acre-ft/yr (36.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,300 ft^3/s (490 m^3/s) June 12, 1970, gage height, 13.01 ft (3.965 m), from rating curve extended above 2,700 ft^3/s (76.5 m^3/s) on basis of slope-area measurement of peak flow; no flow at times in 1936, 1939-40, 1943.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 486 ft^3/s (13.8 m^3/s) May 23, gage height, 8.30 ft (2.530 m); minimum daily during period of operation, 0.62 ft^3/s (0.018 m^3/s) Sept. 9-11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						18	19	52	166	21	1.5	1.1
2						19	21	63	138	19	1.5	.88
3						18	21	74	119	18	1.4	.88
4						18	22	83	95	16	1.5	.98
5						17	22	97	79	16	1.5	.98
6						17	27	85	81	18	1.9	1.1
7						16	29	82	65	13	3.4	1.0
8						16	27	88	51	9.5	3.2	.80
9						16	25	105	42	9.9	3.2	.62
10						16	26	130	35	9.9	3.2	.62
11						16	28	146	32	9.5	3.2	.62
12						18	42	157	31	11	3.2	.70
13						20	64	123	31	12	3.4	.70
14						19	66	133	45	11	3.5	.78
15						19	67	181	91	9.9	3.5	.78
16						16	105	157	57	8.0	3.7	.78
17						16	101	138	39	7.6	3.8	.78
18						17	87	126	45	8.0	4.4	.88
19						19	74	132	47	9.5	4.2	.98
20						20	55	167	38	9.9	3.5	.98
21						19	57	196	29	4.9	2.2	1.1
22						19	80	210	27	1.6	1.6	1.4
23						19	91	393	31	1.4	1.2	1.8
24						20	75	364	47	1.4	1.0	1.3
25						20	75	288	45	1.4	.88	3.4
26						20	92	253	39	1.6	.88	3.5
27						20	87	218	36	1.7	.98	3.4
28						20	73	190	31	1.4	.98	4.4
29						20	72	170	28	1.6	1.1	4.2
30						19	57	241	25	1.4	.98	4.0
31						20	---	202	---	1.3	1.1	---
TOTAL						567	1687	5044	1665	266.4	71.60	45.44
MEAN						18.3	56.2	163	55.5	8.59	2.31	1.51
MAX						20	105	393	166	21	4.4	4.4
MIN						16	19	52	25	1.3	.88	.62
AC-FT						1120	3350	10000	3300	528	142	90

06649520 NORTH PLATTE RIVER AT ORPHA, WY

LOCATION.--Lat 42°51'08", long 105°29'27", in NE¼NW¼NW¼ sec.10, T.33 N., R.72 W., Converse County, Hydrologic Unit 10180008, Fort Fetterman Reservation, at bridge on Ross Road, 0.2 mi (0.3 km) downstream from Fetterman Creek, 0.4 mi (0.6 km) downstream from La Prele Creek, and 0.7 mi (1.1 km) east of Orpha.

PERIOD OF RECORD.--Water years 1970 to June 1976 (discontinued).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1969 to June 1976 (discontinued).

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Records furnished by Wyoming Game and Fish Commission and Pacific Power and Light Company. No record Dec. 13-18.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 29.5°C July 4, 1970; minimum, -1.0°C Jan. 25, 26, 1976.

EXTREMES FOR PERIOD OCTOBER TO JUNE.--
WATER TEMPERATURES: Maximum, 20.5°C May 18, 19; minimum, -1.0°C Jan. 25, 26.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.0	10.5	9.5	7.0	3.0	0.0	0.0	0.0	3.5	1.0	7.0	4.0
2	15.0	10.5	10.0	8.0	4.0	1.0	0.0	0.0	3.5	1.0	4.5	1.0
3	16.5	13.0	10.0	8.0	4.0	1.5	0.0	0.0	3.5	0.0	3.0	0.0
4	14.5	13.5	10.5	8.0	4.5	1.5	2.0	0.0	0.0	0.0	0.5	0.0
5	15.0	12.0	9.5	7.0	4.5	3.0	3.0	1.5	0.0	0.0	3.5	0.0
6	15.5	13.0	9.0	7.0	5.0	3.0	2.0	0.5	0.5	0.0	4.5	0.0
7	16.5	13.5	8.5	6.5	4.5	4.0	0.5	0.0	3.0	0.0	6.0	1.5
8	15.0	10.0	8.5	5.5	5.0	3.5	1.5	0.0	4.5	1.5	8.0	3.5
9	11.0	8.5	6.0	4.5	6.0	5.0	3.5	1.0	4.5	3.0	9.0	5.0
10	13.0	9.5	4.5	3.5	7.0	5.5	3.5	1.0	3.5	1.0	9.5	5.5
11	13.5	10.5	4.0	2.0	6.0	4.0	2.0	0.5	4.0	0.0	8.0	1.5
12	14.0	11.0	3.5	1.0	4.5	2.0	2.0	0.5	3.0	0.5	3.5	0.0
13	12.0	10.0	5.0	2.0	---	---	3.5	1.0	3.5	0.5	4.0	0.0
14	10.0	9.0	6.0	4.0	---	---	2.0	0.0	4.0	0.0	2.0	1.0
15	10.0	6.5	7.0	5.5	---	---	2.0	1.0	3.0	0.0	4.5	0.5
16	10.5	8.5	8.0	6.0	---	---	3.5	1.5	1.5	0.0	3.5	1.5
17	11.5	8.5	7.0	5.5	---	---	3.5	1.5	2.0	0.0	7.0	4.0
18	12.0	9.5	6.0	4.5	---	---	3.0	1.0	1.5	0.0	10.0	6.0
19	13.0	10.5	4.5	2.0	3.5	1.0	1.5	0.0	3.0	0.0	9.5	5.5
20	12.0	10.5	1.5	0.5	3.0	1.0	3.0	0.5	3.5	0.5	5.5	3.0
21	13.5	10.5	1.5	0.0	3.0	0.5	3.5	0.5	3.0	0.0	5.0	1.5
22	11.0	8.0	2.0	0.0	3.0	1.0	3.5	1.0	3.0	0.0	7.0	2.0
23	8.0	4.5	2.0	1.0	2.0	0.0	2.0	1.0	3.5	0.0	8.5	4.5
24	6.0	4.0	3.0	1.0	3.0	0.0	1.5	0.5	4.0	0.0	9.0	5.0
25	5.5	3.0	2.0	0.5	3.0	1.5	0.5	-1.0	4.0	0.5	6.5	5.0
26	6.0	3.5	0.5	0.0	2.0	0.5	1.5	-1.0	4.5	0.5	8.0	4.0
27	6.0	5.5	0.0	0.0	2.0	0.5	2.0	0.0	4.0	1.0	8.0	5.0
28	7.0	5.0	0.0	0.0	1.5	0.0	3.0	1.0	5.5	3.5	8.0	5.0
29	7.0	5.0	0.0	0.0	1.5	0.0	4.0	1.5	5.0	3.0	7.0	4.5
30	9.0	5.5	0.0	0.0	3.0	1.0	3.5	0.5	---	---	8.0	4.0
31	9.5	8.0	---	---	2.0	0.0	2.0	0.0	---	---	10.0	5.0
MONTH	16.5	3.0	10.5	0.0	7.0	0.0	4.0	-1.0	5.5	0.0	10.0	0.0

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	11.0	6.5	14.0	8.5	19.0	15.5						
2	10.0	7.0	15.5	11.0	19.0	15.5						
3	11.0	5.5	16.0	11.5	19.5	16.0						
4	13.0	7.0	15.5	13.0	---	---						
5	13.5	9.0	13.5	11.0	---	---						
6	11.5	9.0	13.5	10.5	---	---						
7	11.0	8.0	15.0	11.0	---	---						
8	13.0	9.5	16.0	12.0	---	---						
9	14.0	10.0	18.0	13.5	---	---						
10	11.0	9.0	17.0	11.5	---	---						
11	15.0	10.5	15.5	13.5	---	---						
12	16.0	13.0	13.5	11.0	---	---						
13	15.0	13.0	16.5	10.5	---	---						
14	13.5	10.0	20.0	14.5	---	---						
15	13.0	10.5	16.5	11.5	---	---						
16	11.5	6.0	14.5	10.0	---	---						
17	8.0	5.5	18.0	11.5	---	---						
18	11.0	8.0	20.5	15.0	---	---						
19	11.5	8.5	20.5	16.0	---	---						
20	13.0	8.5	18.5	15.5	---	---						
21	13.5	10.0	18.0	15.0	---	---						
22	14.0	10.5	15.5	13.0	---	---						
23	12.0	10.5	13.0	9.5	---	---						
24	14.0	9.0	13.5	9.0	---	---						
25	12.0	10.0	15.5	11.5	---	---						
26	10.0	7.0	17.0	13.0	---	---						
27	9.5	6.0	18.5	14.0	---	---						
28	8.5	7.0	20.0	15.5	---	---						
29	9.5	8.0	18.5	16.0	---	---						
30	8.5	7.0	17.0	15.5	---	---						
31	---	---	18.5	14.0	---	---						
MONTH	16.0	5.5	20.5	8.5	---	---						

06652000 NORTH PLATTE RIVER AT ORIN, WY

LOCATION.--Lat 42°39'02", long 105°09'46", in SE¼SW¼SW¼ sec.17, T.31 N., R.69 W., Converse County, Hydrologic Unit 10180008, on right bank 630 ft (192 m) downstream from bridge on U.S. Highway 87, 0.2 mi (0.3 km) upstream from Shawnee Creek, and 1.5 mi (2.4 km) east of Orin.

DRAINAGE AREA (REVISED).--14,888 mi^2 (38,560 km^2), of which 1,193 mi^2 (3,090 km^2) is probably noncontributing. The 3,959 mi^2 (10,254 km^2) in Great Divide Basin is not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January, April to November 1895, April to October 1896, January 1897 to December 1898, April to November 1899, April to September 1917, April to September 1918, May to September 1924, April 1958 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Orin Junction" 1895, 1897-99 and as "at McKinley" 1917-18.

REVISED RECORDS.--WSP 1310: 1896, 1899. WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,660 ft (1,420 m), from topographic map. Jan. 1, 1895, to Nov. 30, 1899, and May 1 to Sept. 30, 1924, nonrecording gage at railroad bridge just upstream from U.S. Highway 87 at different datum. Apr. 1, 1917, to Sept. 30, 1918, nonrecording gage at site 2.2 mi (3.5 km) downstream at different datum.

REMARKS.--Records good except those for winter period and period of no gage-height record, Feb. 10-24, which are poor. Major regulation began after completion of Pathfinder Reservoir in April 1909. Natural flow of stream affected by storage reservoirs, power development, diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Twenty-nine discharge measurements furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft^3/s (674 m^3/s) May 15, 1965, gage height, 10.00 ft (3.048 m); maximum gage height, 10.45 ft (3.185 m) June 12, 1970; minimum daily discharge determined, 170 ft^3/s (4.81 m^3/s) Sept. 11-14, 1899.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,090 ft^3/s (116 m^3/s) May 24, gage height, 4.71 ft (1.436 m); maximum gage height, 9.12 ft (2.780 m) Feb. 10, from floodmarks (backwater from ice); minimum daily discharge, 500 ft^3/s (14.2 m^3/s) Dec. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1750	1640	660	825	1190	1290	1090	1390	1980	1860	3350	1800
2	1490	1650	1060	745	1200	1200	1090	1320	1800	2080	3630	1800
3	1410	1660	1680	518	1180	1120	1040	1460	1730	2140	3630	1770
4	1400	1650	1540	550	960	1090	1010	1580	1640	2010	3540	1790
5	1420	1650	1270	740	840	1120	1010	1720	1560	1950	3480	1800
6	1410	1600	1120	830	640	1110	1070	1870	1500	1840	3460	1770
7	1410	1190	1120	840	640	1110	1210	1750	1490	1820	3440	1820
8	1400	1620	1120	920	965	1140	1190	1730	1490	1790	3420	1830
9	1400	1640	1120	990	1150	1190	1140	1650	1440	1720	3440	1830
10	1440	1660	1100	1040	1600	1200	1120	1690	1370	1690	3440	1950
11	1450	1690	1030	1100	1360	1180	1110	1750	1340	1660	3420	2100
12	1600	1680	1010	1060	1300	1100	1160	1760	1340	1680	3480	2240
13	1640	1700	1020	1010	1350	1100	1260	1760	1320	1730	3460	2300
14	1650	1720	1030	995	1320	1040	1560	1570	1450	1660	3460	2280
15	1660	1750	858	1090	1370	1090	1640	1520	1830	1520	3440	2270
16	1720	1660	610	1140	1360	1060	1950	1730	1820	1460	3400	2250
17	1760	1680	500	1220	1460	1050	2440	1650	1990	1400	3350	2280
18	1770	1680	540	1260	1320	1060	1900	1480	2070	1410	2810	2300
19	1770	1690	560	1140	1240	1050	1600	1360	2100	1410	2050	2590
20	1770	1690	920	1130	1210	1100	1480	1480	2100	1450	1600	2440
21	1640	1700	998	1170	1240	1130	1400	1750	2040	1540	1500	2360
22	953	1730	960	1190	1200	1100	1360	2110	1950	1520	1520	2340
23	869	1480	958	1190	1160	1100	1400	3180	1990	1490	1620	2300
24	900	1440	958	1160	1240	1090	1490	3970	2100	1480	1680	2340
25	900	1240	965	1030	1290	1100	1420	3370	2100	2160	1700	2330
26	869	1170	1050	980	1320	1120	1480	2970	2020	3440	1760	2330
27	1610	1160	1080	980	1420	1130	1610	2670	2020	3310	1790	2440
28	1690	1130	1030	1020	1310	1120	1580	2430	1990	3350	1800	2510
29	1690	1060	985	1150	1290	1120	1520	2220	1920	3310	1800	2280
30	1650	796	1040	1230	---	1120	1460	2140	1860	3280	1860	2190
31	1640	---	963	1280	---	1100	---	2190	---	3290	1820	---
TOTAL	45731	45806	30875	31523	35125	34630	41790	61220	53350	62450	84150	64630
MEAN	1475	1527	996	1017	1211	1117	1393	1975	1778	2015	2715	2154
MAX	1770	1750	1680	1280	1600	1290	2440	3970	2100	3440	3630	2590
MIN	869	796	500	518	640	1040	1010	1320	1320	1400	1500	1770
AC-FT	90710	90860	61240	62530	69670	68690	82890	121400	105800	123900	166900	128200

CAL YR 1975 TOTAL 629351 MEAN 1724 MAX 3910 MIN 500 AC-FT 1248000
WTR YR 1976 TOTAL 591280 MEAN 1616 MAX 3970 MIN 500 AC-FT 1173000

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
NOV												
04...	1115	1650	--	--	11.0	4	10.4	32	230	84	60	20
DEC												
02...	1300	A1060	--	--	1.0	2	11.4	42	280	120	71	24
JAN												
06...	1100	A830	--	--	.5	2	11.9	72	330	130	86	29
21...	1000	A1170	800	8.3	.0	10	6.7	--	270	110	70	22
FEB												
03...	1115	A1180	--	--	1.0	5	10.3	96	270	120	67	24
MAR												
04...	1200	A1090	--	--	.5	25	11.7	47	290	130	73	25
APR												
06...	1145	1070	--	--	8.0	20	10.0	36	250	110	62	23
14...	1100	1550	625	8.3	11.5	22	10.2	--	220	95	56	19
MAY												
04...	1130	1610	--	--	13.0	30	8.9	38	190	83	49	16
JUN												
09...	1130	1440	--	--	22.0	30	8.1	88	240	92	60	22
JUL												
07...	2200	1920	--	--	23.0	80	6.7	260	210	71	55	19
AUG												
03...	1330	3790	--	--	19.0	200	7.2	8500	210	79	58	17
05...	1200	3480	510	8.2	17.5	--	--	--	--	--	--	--
31...	1430	1820	--	--	20.0	7	8.3	822	230	92	61	19
SEP												
28...	1145	2510	--	--	12.0	10	8.5	66	220	110	49	25

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
NOV												
04...	50	1.4	3.7	160	9	146	180	13	.5	7.8	--	424
DEC												
02...	58	1.5	4.2	200	0	164	220	16	.6	8.4	--	500
JAN												
06...	77	1.8	2.1	240	0	197	280	19	.6	11	--	627
21...	56	1.5	4.0	187	0	153	210	14	.4	7.8	--	477
FEB												
03...	55	1.5	3.7	180	0	148	210	13	.5	9.3	--	479
MAR												
04...	64	1.6	3.7	190	0	156	250	16	.5	11	--	544
APR												
06...	58	1.6	3.7	160	3	136	220	13	.5	3.2	--	463
14...	47	1.4	4.2	150	0	123	160	11	.4	5.7	--	377
MAY												
04...	40	1.3	3.0	130	0	107	150	9.0	.4	8.7	--	346
JUN												
09...	51	1.4	3.7	180	0	148	180	13	.5	7.3	--	432
JUL												
07...	41	1.2	4.0	170	0	139	150	13	.5	9.4	--	373
AUG												
03...	35	1.0	4.9	160	0	131	160	11	.4	12	--	373
05...	--	--	--	--	--	--	--	--	--	--	410	--
31...	45	1.3	3.5	150	9	138	170	12	.5	5.9	--	404
SEP												
28...	40	1.2	2.3	140	0	115	150	22	.5	12	--	373

PLATTE RIVER BASIN

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
NOV											
04...	.58	1890	.05	--	--	--	--	--	.02	--	--
DEC											
02...	.68	1430	.25	--	--	--	--	--	.06	--	--
JAN											
06...	.85	1410	.54	--	--	--	--	--	.03	--	--
21...	.65	1510	--	.73	.04	.72	.76	1.5	.05	1100	18
FEB											
03...	.65	1530	.45	--	--	--	--	--	.05	--	--
MAR											
04...	.74	1600	.68	--	--	--	--	--	.06	--	--
APR											
06...	.63	1340	.05	--	--	--	--	--	.04	--	--
14...	.51	1580	--	.01	.00	1.1	1.1	1.1	.08	--	--
MAY											
04...	.47	1500	.43	--	--	--	--	--	.07	--	--
JUN											
09...	.59	1680	.25	--	--	--	--	--	.10	--	--
JUL											
07...	.51	1930	.34	--	--	--	--	--	.24	--	--
AUG											
03...	.51	3820	.00	--	--	--	--	--	.31	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
31...	.55	1990	.16	--	--	--	--	--	.03	--	--
SEP											
28...	.51	2530	.84	--	--	--	--	--	.08	--	--

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ANTI-MONY (SB) (UG/L)	DIS-SOLVED ANTI-MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)
JAN										
21...	1000	460	20	0	0	2	0	--	0	10
APR										
14...	1100	2300	10	0	0	3	1	--	0	0
AUG										
A 05...	1200	--	30	--	--	--	--	30	--	<3

DATE	DIS-SOLVED BISMUTH (BI) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED GALLIUM (GA) (UG/L)
JAN										
21...	--	110	<10	0	0	0	--	20	3	--
APR										
14...	--	70	<10	1	0	0	--	10	3	--
AUG										
A 05...	<3	50	--	2	--	<3	<3	--	2	<3

DATE	DIS-SOLVED GER-MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)
JAN										
21...	--	270	0	<100	2	30	30	20	0	.4
APR										
14...	--	2500	0	<100	2	30	30	130	10	.1
AUG										
A 05...	<7	--	20	--	5	--	20	--	<3	--

DATE	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED TIN (SN) (UG/L)
JAN										
21...	.0	2	3	<50	2	6	6	--	--	--
APR										
14...	.0	2	2	<50	4	5	4	--	--	--
AUG										
A 05...	--	--	5	--	11	--	--	<1	300	<4

DATE	DIS-SOLVED TI-TANIUM (TI) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED ZIR-CONIUM (ZR) (UG/L)	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (PLAN-CHET COUNT) (PC/L)
JAN									
21...	--	2.4	40	10	--	--	--	--	--
APR									
14...	--	.7	40	10	--	--	--	--	--
AUG									
A 05...	<3	<5.5	--	0	<5	23	7.6	6.4	.3

A Spectographic analysis of metals.

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	POLYCHLORINATED NAPHTHALENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)
SEP 24...	1030	2360	.0	0	.00	.00	.0	.0	2	.00

DATE	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)
SEP 24...	.5	.00	.5	.00	.0	.00	.00	.0	.00

DATE	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)
SEP 24...	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	TOTAL METHYL PARATHION (UG/L)	TOTAL METHYL TRITHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL TOXAPHENE (UG/L)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
SEP 24...	.00	.00	.00	0	0	.00	.00	.00	.00

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 24...	1400	.0	880	17	40
JAN 21...	1000	.0	A1170	22	69
FEB 11...	1300	--	A1360	223	819
MAR 23...	1415	--	1110	95	285
APR 14...	1100	11.5	1550	184	770
MAY 16...	1900	16.5	1930	138	719
JUN 23...	1630	19.5	2050	356	1970
JUL 25...	1720	24.0	2810	456	3460
AUG 05...	1030	17.3	3500	444	4200
26...	1915	--	1770	67	320
SEP 27...	1505	15.5	2510	124	840

A Daily mean discharge.

06652000 NORTH PLATTE RIVER AT ORIN, WY--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JAN 21,76
TIME	1000
TOTAL CELLS/ML	1100
DIVERSITY: DIVISION	0.0
.CLASS	0.0
..ORDER	0.0
...FAMILY	1.5
....GENUS	1.5

ORGANISM	CELLS /ML	PER-CENT
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..PENNALES		
...ACHNANTHACEAE		
....RHOICOSPHENIA	84	8
...DIATOMACEAE		
....DIATOMA	380#	34
...NAVICULACEAE		
....NAVICULA	630#	56
...NITZSCHIACEAE		
....NITZSCHIA	42	4

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

PERIPHYTON

JAN. 21, 1976
1000 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME______________	_COMMON__NAME______
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...SCENEDESMACEAE	
	....SCENEDESMUS	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
&	....CLADOPHORA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
	....ACHNANTHES	
	....COCCONEIS	
&	....RHOICOSPHENIA	
	...CYMBELLACEAE	
	....CYMBELLA	
	...DIATOMACEAE	
&	....DIATOMA	
	...FRAGILARIACEAE	
	....FRAGILARIA	
	....SYNEDRA	
	...GOMPHONEMATACEAE	
	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
	....CALONEIS	
&	....NAVICULA	
	....NEIDIUM	
	...NITZSCHIACEAE	
	....NITZSCHIA	

NOTE: & - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
 ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

06652700 GLENDO RESERVOIR NEAR GLENDO, WY

LOCATION.--Lat 42°28'21", long 104°57'28", in SW¼NE¼ sec.24, T.29 N., R.68 W., Platte County, Hydrologic Unit 10180008, on right bank in gate shaft house on North Platte River, 0.5 mi (0.8 km) southwest of Glendo Dam, and 5.0 mi (8.0 km) southeast of Glendo.

DRAINAGE AREA (REVISED).--15,545 mi^2 (40,262 km^2), of which 1,215 mi^2 (3,147 km^2) is probably noncontributing. The 3,959 mi^2 (10,254 km^2) in Great Divide Basin is not included.

RESERVOIR-CONTENTS RECORD

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder for elevations above 4,543.50 ft (1,384.859 m). Datum of gage is 4,543.50 ft (1,384.859 m) above mean sea level, datum of 1934 (adjusted 1940), levels by Bureau of Reclamation; gage readings have been reduced to elevations above mean sea level.

REMARKS.--Reservoir is formed by rock-fill dam completed in October 1957. Storage began Oct. 17, 1957. Capacity, 795,200 acre-ft (980 hm^3) at elevation 4,653.00 ft (1,418.234 m), spillway crest. Dead storage, 11,500 acre-ft (14.2 hm^3). Figures given herein represent total contents. Water is used for irrigation in North Platte River basin, and for development of power.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 758,800 acre-ft (936 hm^3) May 28, 1973, elevation, 4,650.94 ft (1,417.607 m); minimum daily (since appreciable storage was attained), 15,140 acre-ft (18.7 hm^3) Sept. 28, 1966, elevation, 4,548.10 ft (1,386.261 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 514,000 acre-ft (634 hm^3) May 6, elevation, 4,634.70 ft (1,412.657 m); minimum daily, 57,400 acre-ft (70.8 hm^3) Sept. 27, elevation, 4,568.10 ft (1,392.357 m).

Capacity table (elevation in feet, and contents, in acre-feet)

4,568	57,100	4,610	274,000
4,570	63,100	4,620	358,000
4,580	98,800	4,630	459,000
4,590	144,000	4,635	517,000
4,600	202,000		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	67900	150000	237000	300000	365000	433000	491000	509000	505000	448000	265000	133000
2	65000	151000	238000	301000	368000	436000	491000	509000	506000	442000	258000	128000
3	64800	155000	242000	302000	370000	438000	491000	510000	508000	436000	255000	123000
4	65200	158000	245000	303000	372000	440000	491000	510000	509000	430000	253000	118000
5	67500	162000	248000	305000	373000	442000	491000	512000	510000	423000	251000	113000
6	69900	165000	250000	307000	374000	444000	492000	514000	511000	416000	248000	108000
7	72900	168000	253000	309000	375000	446000	492000	513000	512000	410000	246000	104000
8	75700	171000	256000	311000	377000	448000	493000	512000	512000	403000	244000	98900
9	78500	174000	258000	312000	380000	450000	493000	511000	511000	396000	242000	95000
10	81400	178000	260000	315000	383000	453000	493000	510000	511000	390000	240000	91500
11	84300	181000	263000	317000	386000	455000	493000	509000	510000	385000	238000	88500
12	87400	184000	265000	320000	389000	457000	494000	507000	507000	382000	235000	85900
13	90600	188000	267000	322000	392000	459000	496000	506000	504000	379000	232000	83300
14	93700	191000	269000	324000	395000	461000	497000	504000	501000	375000	228000	80800
15	97000	195000	270000	326000	397000	463000	499000	503000	498000	372000	226000	78300
16	100000	198000	272000	329000	400000	465000	502000	501000	495000	368000	222000	76100
17	104000	201000	272000	331000	403000	467000	505000	498000	493000	364000	219000	74100
18	107000	205000	273000	334000	405000	469000	506000	497000	491000	357000	215000	72300
19	110000	208000	274000	336000	407000	471000	507000	494000	489000	350000	210000	70800
20	114000	211000	275000	338000	410000	473000	508000	490000	487000	343000	203000	69200
21	117000	214000	277000	341000	412000	474000	508000	486000	485000	336000	197000	67200
22	119000	218000	279000	343000	414000	476000	508000	483000	482000	328000	191000	65200
23	121000	221000	281000	346000	416000	479000	508000	483000	479000	321000	185000	62800
24	123000	224000	283000	348000	418000	480000	508000	486000	476000	314000	179000	60400
25	125000	226000	285000	350000	421000	483000	509000	487000	473000	307000	172000	58500
26	127000	228000	287000	352000	423000	485000	509000	489000	469000	304000	167000	57500
27	130000	230000	290000	354000	426000	487000	510000	491000	467000	301000	161000	57400
28	134000	232000	292000	356000	428000	489000	510000	494000	464000	294000	155000	58900
29	138000	234000	294000	358000	431000	490000	511000	497000	459000	287000	149000	60500
30	141000	235000	297000	360000	---	491000	510000	500000	453000	280000	144000	63400
31	149000	---	299000	363000	---	491000	---	502000	---	272000	139000	---
MAX	149000	235000	299000	363000	431000	491000	511000	514000	512000	448000	265000	133000
MIN	64800	150000	237000	300000	365000	433000	491000	483000	453000	272000	139000	57400
(†)	4,590.98	4,604.83	4,613.16	4,620.47	4,627.36	4,632.80	4,634.35	4,633.75	4,629.47	4,609.80	4,588.92	4,570.70
(‡)	+81,500	+86,000	+64,000	+64,000	+68,000	+60,000	+19,000	-8,000	-49,000	-181,000	-133,000	-75,600

CAL YR 1975 MAX 511000 MIN 59500 ‡+11000
WTR YR 1976 MAX 514000 MIN 57400 ‡ -4100

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06652700 GLENDO RESERVOIR NEAR GLENDO, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Reservoir sampled at one site prior to July 1973 and at both sites thereafter. Samples are collected at the surface, the thermocline or midpoint if a well defined thermocline is not present, and at the bottom. Dissolved oxygen and temperature are measured at additional depths. Reservoir storage represents total storage at 2400 hours.

SAMPLE SITE 1.--Lat 42°28'49", long 104°57'07", in NW¼SE¼SE¼ sec.13, T.29 N., R.68 W., 150 ft (46 m) upstream from dam.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	RESER-VOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DIS-SOLVED OXYGEN (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180°C) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED PHOS-PHORUS (P) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
FEB., 1976												
19...	471,000	9.5	1.0	1.0	13.8	448	.61	.23	.03	.00	3700	.6
			40	2.0	10.1	460	.63	.21	.03	.00	2200	.6
			87	2.5	8.5	526	.12	.58	.13	.00	450	7.1
MAY												
18...	497,000	7.5	SURFACE	14.0	10.8	498	.68	.10	.04	.02	1900	3.6
			58	10.0	9.9	440	.60	.13	.04	.10	2600	.8
			117	9.0	8.8	496	.67	.13	.17	.08	1400	6.2
JULY												
15...	372,000	8.0	SURFACE	21.0	8.5	445	.61	.01	.00	.00	1100	1.3
			30	21.0	8.4	460	.63	.03	.01	.03	980	1.1
			105	14.0	3.4	458	.62	.06	.28	.06	1400	17
AUG.												
03...	255,000	8.0	SURFACE	21.5	5.9	429	.58	.07	.04	.01	--	.7
			40	21.0	5.6	432	.59	.07	.02	.01	--	.7
			87	17.0	.3	442	.60	.17	.31	.09	--	23
AUG.												
16...	222,000	6.9	1.0	21.0	7.0	392	.53	.18	.00	.01	850	3.1
			40	20.0	5.7	394	.54	.20	.02	.01	3300	5.2
			86	16.5	.1	425	.58	.11	.65	.18	2700	33
AUG.												
31...	139,000	5.8	1.0	--	--	377	.51	.06	.00	.02	--	.5
			35	--	--	410	.56	.09	.02	.02	--	.9
			74	--	--	419	.57	.02	.99	.25	--	34

06652700 GLENDO RESERVOIR NEAR GLENDO, WY--Continued

SAMPLE SITE 1.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	FEB 19,76	FEB 19,76	FEB 19,76	MAY 18,76	MAY 18,76	MAY 18,76
TIME	1130	1135	1140	1610	1615	1620
DEPTH BELOW SURFACE (FT)	87	40	1.0	117	58	SURFACE
TOTAL CELLS/ML	450	2200	3700	1400	2600	1900
DIVERSITY: DIVISION	0.0	0.6	1.1	0.0	0.4	0.0
.CLASS	0.0	1.1	1.7	0.0	0.5	0.0
..ORDER	0.8	1.6	2.0	0.3	0.7	0.0
...FAMILY	1.1	1.6	2.1	0.3	0.9	0.2
....GENUS	1.1	1.7	2.1	0.9	0.9	0.2

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE												
....COELASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE												
....PEDIASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	64	3	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	64	3	560#	16	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	64	3	80	3	--	-	190	8	--	-
...PHACOTACEAE												
....PHACOTUS	--	-	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	110#	26	260	12	240	7	43	4	63	3	--	-
....MELOSIRA	*	0	--	-	--	-	43	4	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-	--	-
..PENNALES												
...DIATOMACEAE												
....DIATOMA	*	0	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	320#	71	1500#	66	560#	16	1100#	82	2200#	86	1900#	98
....FRAGILARIA	--	-	--	-	--	-	170	13	--	-	--	-
....SYNEDRA	--	-	--	-	--	-	--	-	*	0	--	-
...NITZSCHIACEAE												
....NITZSCHIA	--	-	--	-	80	3	--	-	63	3	43	3
...SURIRELLACEAE												
....SURIRELLA	23	6	--	-	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...OCHROMONADACEAE												
....OCHROMONAS	--	-	260	12	1800#	51	--	-	63	3	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.MYXOPHYCEAE												
..OSCILLATORIALES												
...NOSTOCACEAE												
....APHANIZOMENON	--	-	--	-	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.CRYPTOPHYCEAE												
..CRYPTOMONIDALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	--	-	--	-	--	-	--	-	--	-
...CRYPTOMONODACEAE												
....CRYPTOMONAS	--	-	--	-	320	9	--	-	--	-	--	-
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	--	-	64	3	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

06652700 GLENDO RESERVOIR NEAR GLENDO, WY--Continued

SAMPLE SITE 1.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JUL 15,76		JUL 15,76		JUL 15,76		AUG 16,76		AUG 16,76		AUG 16,76	
TIME	1140		1150		1200		1325		1330		1335	
DEPTH BELOW SURFACE (FT)	105		30		SURFACE		86		40		1.0	
TOTAL CELLS/ML	1400		980		1100		2700		3300		850	
DIVERSITY: DIVISION	1.2		1.4		1.1		1.3		1.1		0.8	
.CLASS	1.2		1.4		1.1		1.3		1.1		0.8	
..ORDER	1.6		1.5		1.4		1.7		1.1		0.8	
...FAMILY	1.7		2.0		1.8		1.7		1.1		1.6	
....GENUS	1.9		2.0		1.9		1.8		1.4		1.7	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHARACIACEAE												
....SCHROEDERIA	--	-	52	6	23	3	--	-	75	3	12	2
...COELASTRACEAE												
....COELASTRUM	--	-	--	-	--	-	--	-	--	-	44	6
...HYDRODICTYACEAE												
....PEDIASTRUM	--	-	--	-	--	-	310	12	--	-	59	7
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	23	3	20	1	--	-	--	-
....OOCYSTIS	--	-	--	-	270#	25	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-	--	-
...PHACOTACEAE												
....PHACOTUS	41	4	100	11	110	11	98	4	19	1	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	170	13	--	-	--	-	240	9	220	7	15	2
....MELOSIRA	28	3	--	-	--	-	--	-	1000#	[illegible]	26	4
....STEPHANODISCUS	--	-	--	-	--	-	20	1	--	-	--	-
..PENNALES												
...DIATOMACEAE												
....DIATOMA	--	-	--	-	--	-	--	-	--	-	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	410#	31	260#	27	23	3	140	6	--	-	--	-
....FRAGILARIA	41	4	--	-	--	-	140	6	--	-	--	-
....SYNEDRA	--	-	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	14	2	--	-	--	-	--	-	--	-	--	-
...SURIRELLACEAE												
....SURIRELLA	--	-	--	-	--	-	--	-	--	-	--	-
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...OCHROMONADACEAE												
....OCHROMONAS	--	-	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.MYXOPHYCEAE												
..OSCILLATORIALES												
...NOSTOCACEAE												
....APHANIZOMENON	--	-	--	-	--	-	--	-	1900#	59	140#	17
...OSCILLATORIACEAE												
....OSCILLATORIA	660#	49	--	-	--	-	1700#	64	--	-	560#	66
EUGLENOPHYTA (EUGLENOIDS)												
.CRYPTOPHYCEAE												
..CRYPTOMONIDALES												
...CRYPTOCHRYSIDACEAE												
....CHROOMONAS	--	-	160#	16	91	9	--	-	--	-	--	-
...CRYPTOMONODACEAE												
....CRYPTOMONAS	--	-	410#	43	590#	53	--	-	--	-	--	-
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	--	-	--	-	20	1	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
 * - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06652700 GLENDO RESERVOIR NEAR GLENDO, WY--Continued

SAMPLE SITE 2.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	MAY 18,76	MAY 18,76	MAY 18,76	JUL 15,76	JUL 15,76
TIME	1105	1110	1115	1050	1100
DEPTH BELOW SURFACE (FT)	87	43	1.0	69	30
TOTAL CELLS/ML	2400	2300	2500	530	3600
DIVERSITY: DIVISION	0.5	0.5	0.2	0.6	1.4
.CLASS	0.5	0.5	0.2	0.6	1.4
..ORDER	1.0	1.1	0.2	1.5	1.6
...FAMILY	1.2	1.2	0.8	1.7	1.7
....GENUS	2.0	1.4	0.8	2.3	1.7

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE										
....PEDIASTRUM	--	-	*	0	--	-	--	-	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	36	7	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	100	3
....TETRAEDRON	47	2	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	300	13	--	-	--	-	--	-
....TETRASTRUM	190	8	--	-	--	-	--	-	--	-
..TETRASPORALES										
...PALMELLACEAE										
....GLOEOCYSTIS	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES										
...PHACOTACEAE										
....PHACOTUS	--	-	--	-	--	-	18	4	76	3
..ZYGNEMATALES										
...DESMIDIACEAE										
....CLOSTERIUM	--	-	--	-	63	3	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	240	10	130	6	--	-	--	-	51	2
....MELOSIRA	95	4	210	10	--	-	150#	29	--	-
....STEPHANODISCUS	--	-	--	-	--	-	9	2	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	47	2	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	380#	16	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	1200#	51	1700#	71	2100#	83	200#	39	2300#	64
....FRAGILARIA	570#	24	--	-	--	-	89#	17	--	-
...NAVICULACEAE										
....NAVICULA	--	-	--	-	--	-	9	2	--	-
...NITZSCHIACEAE										
....NITZSCHIA	--	-	42	2	--	-	9	2	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.MYXOPHYCEAE										
..OSCILLATORIALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	--	-
....APHANIZOMENON	--	-	--	-	--	-	--	-	560#	16
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.CRYPTOPHYCEAE										
..CRYPTOMONIDALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	--	-	--	-	--	-	76	3
...CRYPTOMONODACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	9	2	460	13
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...CERATIACEAE										
....CERATIUM	--	-	--	-	--	-	--	-	--	-
...PERIDINIACEAE										
....PERIDINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06652700 GLENDO RESERVOIR NEAR GLENDO, WY--Continued

SAMPLE SITE 2.--Lat 42°30'00", long 104°57'15", in SW¼SE¼NE¼ sec.12, T.29 N., R.68 W., approximately 2.8 mi (4.5 km) upstream from dam.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	RESERVOIR STORAGE (AC-FT)	SECCHI DISC (INCHES)	DEPTH (FT)	TEMP (°C)	DISSOLVED OXYGEN (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180°C) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
MAY, 1976												
18...	497,000	8.1	1.0	11.5	10.2	465	.63	.09	.04	.02	2500	1.2
			43	10.0	9.5	482	.66	.09	.04	.02	2300	.9
			87	11.0	8.8	428	.58	.10	.05	.03	2400	.8
JULY												
15...	372,000	7.1	SURFACE	21.0	8.4	440	.60	.01	.01	.01	4500	1.3
			30	20.0	7.5	453	.62	.03	.02	.01	3600	.4
			69	15.0	4.2	451	.61	.06	.21	.04	530	13
AUG.												
03...	255,000	4.1	SURFACE	22.0	6.2	422	.57	.10	.09	.02	--	1.1
			40	21.0	6.2	425	.58	.08	.09	.01	--	.3
			61	21.0	5.4	416	.57	.12	.18	.02	--	5.8
AUG.												
16...	222,000	3.7	1.0	21.0	8.5	404	.55	.08	.06	.00	19000	.5
			30	20.0	6.9	396	.54	.09	.02	.00	19000	1.0
			54	20.0	7.1	404	.55	.10	.04	.01	7800	2.8
AUG.												
31...	139,000	4.4	1.0	--	--	385	.52	.04	.01	.02	--	.4
			20	--	--	387	.53	.06	.02	.02	--	.4
			41	--	--	393	.53	.07	.02	.02	--	.5

06652700 GLENDO RESERVOIR NEAR GLENDO, WY--Continued

SAMPLE SITE 2.--Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PHYTOPLANKTON

DATE	JUL 15,76	AUG 16,76	AUG 16,76	AUG 16,76
TIME	1110	1400	1405	1410
DEPTH BELOW SURFACE (FT)	SURFACE	54	30	1.0
TOTAL CELLS/ML	4500	7800	19000	19000
DIVERSITY: DIVISION	1.5	1.0	0.2	0.1
.CLASS	1.5	1.0	0.2	0.1
..ORDER	1.7	1.1	0.2	0.1
...FAMILY	1.8	2.0	0.2	0.1
....GENUS	2.1	2.0	0.2	0.4

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	42	1	*	0	*	0
...COELASTRACEAE								
....COELASTRUM	--	-	680	9	--	-	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	85	2	*	0	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	150	1
....OOCYSTIS	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	--	-	--	-	*	0
....TETRASTRUM	--	-	--	-	--	-	--	-
..TETRASPORALES								
...PALMELLACEAE								
....GLOEOCYSTIS	--	-	--	-	--	-	*	0
..VOLVOCALES								
...PHACOTACEAE								
....PHACOTUS	110	3	42	1	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	82	2	250	4	--	-	--	-
....MELOSIRA	--	-	42	1	320	2	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	2000#	45	460	6	--	-	--	-
....FRAGILARIA	380	9	85	2	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	85	[illegible]	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.MYXOPHYCEAE								
..OSCILLATORIALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	1100	6
....APHANIZOMENON	1100#	25	4100#	53	18000#	98	18000#	93
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	1900#	25	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	140	4	--	-	--	-	--	-
...CRYPTOMONODACEAE								
....CRYPTOMONAS	660#	15	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...CERATIACEAE								
....CERATIUM	--	-	--	-	--	-	*	0
...PERIDINIACEAE								
....PERIDINIUM	--	-	--	-	--	-	*	0

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WY

LOCATION.--Lat 42°27'25", long 104°56'50", in SW¼SW¼NW¼ sec.30, T.29 N., R.67 W., Platte County, Hydrologic Unit 10180008, on right bank opposite Sand Draw, 1.3 mi (2.1 km) upstream from Horseshoe Creek, 3.1 mi (5.0 km) downstream from Glendo Dam, and 5.2 mi (8.4 km) southeast of Glendo.

DRAINAGE AREA (REVISED).--15,548 mi² (40,269 km²), of which 1,215 mi² (3,147 km²) is probably noncontributing. The 3,959 mi² (10,254 km²) in Great Divide Basin is not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,488.94 ft (1,368.229 m) above mean sea level (levels by Bureau of Reclamation).

REMARKS.--Records good except those for December to February, which are poor. Flow completely regulated by Glendo Reservoir since Oct. 17, 1957. (See sta 06652700.) Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Thirty-seven discharge measurements furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,700 ft³/s (275 m³/s) June 1, 6, 1973; maximum gage height, 10.97 ft (3.344 m) June 1, 1973; minimum daily discharge, 0.80 ft³/s (0.023 m³/s) Oct. 5, Dec. 3, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,260 ft³/s (206 m³/s) July 30, gage height, 9.82 ft (2.993 m); minimum daily, 1.0 ft³/s (0.028 m³/s) Dec. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1710	7.2	2.6	1.6	2.2	3.2	1050	1310	740	4550	7200	4460
2	3240	7.2	2.8	1.5	7.2	3.2	1020	1260	747	4960	7190	4420
3	1700	7.6	2.2	1.4	2.4	6.4	994	1150	933	5240	5570	4420
4	1310	8.0	2.2	1.5	2.2	13	994	1090	946	5250	4630	4380
5	306	8.0	1.8	1.7	2.0	3.9	986	772	930	5270	4560	4190
6	292	8.4	1.7	1.6	2.0	2.4	994	1400	937	5240	4650	4120
7	13	8.0	1.7	1.5	2.6	2.4	986	1650	1180	5260	4650	4110
8	10	8.4	1.7	2.0	2.8	2.4	1000	2460	1530	5260	4630	4160
9	6.4	8.0	1.7	2.4	3.5	2.4	1080	2070	1690	5160	4620	3790
10	7.6	6.1	1.8	2.2	3.0	2.2	1000	2090	1420	4960	4630	3720
11	12	1.6	1.7	2.1	2.8	2.2	1010	2360	1740	4090	4780	3590
12	12	1.6	1.7	2.1	2.8	3.0	881	2530	2500	3280	5030	3550
13	12	1.7	1.6	2.2	2.8	2.4	396	2400	3090	3310	5080	3540
14	10	2.0	1.6	2.4	2.6	2.4	554	2380	3120	3310	5130	3540
15	6.4	2.0	1.2	2.8	2.8	3.0	772	2490	3120	3320	5120	3480
16	7.6	2.0	1.1	3.4	2.6	2.2	853	2490	3070	3320	5120	3360
17	7.2	2.0	1.0	3.2	2.6	2.6	994	2920	2670	3460	5180	3240
18	7.2	2.0	1.2	3.2	2.8	13	994	2280	2780	4990	5160	3240
19	7.6	2.0	1.6	2.8	2.8	6.4	1040	3010	2880	5010	5100	3260
20	7.6	1.6	1.8	2.4	2.8	6.4	1100	3380	3020	5380	5020	3260
21	7.2	1.8	1.8	2.4	2.8	6.1	1520	3910	2990	5200	4830	3240
22	7.6	1.8	1.8	2.2	2.4	6.1	1370	4060	3280	5220	4790	3300
23	8.4	2.0	1.8	2.2	2.4	6.1	1220	2980	3460	5120	4810	3480
24	8.4	2.0	2.2	1.8	2.6	6.4	1210	1710	3470	5120	4790	3580
25	7.6	2.0	2.2	2.0	2.6	6.4	1280	2710	3460	5150	4770	3280
26	7.2	2.2	2.4	2.0	2.8	6.1	1330	2120	3320	5150	4740	2810
27	7.6	2.2	2.2	2.0	2.6	6.1	1270	1330	3170	5070	4740	2310
28	7.2	2.0	2.0	2.0	2.8	6.4	1210	759	3270	6430	4770	1680
29	7.2	2.0	1.8	2.2	2.8	331	1700	910	4210	7180	4530	1500
30	7.2	1.8	1.7	2.2	---	703	1990	577	4810	7210	4470	703
31	7.2	---	1.7	2.2	---	924	---	903	---	7210	4490	---
TOTAL	8767.4	115.2	56.3	67.2	81.1	2092.8	32798	63461	74483	154680	154780	101713
MEAN	283	3.84	1.82	2.17	2.80	67.5	1093	2047	2483	4990	4993	3390
MAX	3240	8.4	2.8	3.4	7.2	924	1990	4060	4810	7210	7200	4460
MIN	6.4	1.6	1.0	1.4	2.0	2.2	396	577	740	3280	4470	703
AC-FT	17390	228	112	133	161	4150	65050	125900	147700	306800	307000	201700

CAL YR 1975 TOTAL 617129.8 MEAN 1691 MAX 7050 MIN 1.0 AC-FT 1224000
WTR YR 1976 TOTAL 593095.0 MEAN 1620 MAX 7210 MIN 1.0 AC-FT 1176000

06652800 NORTH PLATTE RIVER BELOW GLENDO RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NON-CARBONATE HARDNESS (MG/L)
NOV								
04...	1015	8.4	10.0	5	11.0	<1	240	91
DEC								
02...	1200	2.8	7.5	2	12.8	<1	250	100
JAN								
06...	1000	A1.6	3.0	3	8.1	B1	260	100
FEB								
03...	1015	2.4	4.0	2	10.4	<1	280	120
MAR								
04...	1045	14	2.5	1	10.0	B1	290	120
APR								
06...	1030	965	4.0	1	11.6	<1	260	100
MAY								
04...	1030	2240	8.0	2	10.4	B6	250	92
JUN								
09...	1015	1590	10.0	1	6.2	<1	250	100
JUL								
07...	2100	5280	17.0	1	6.7	<1	230	91
AUG								
03...	1115	4690	20.5	0	5.0	B4	230	91
31...	1330	4490	20.5	1	6.3	<1	210	71
SEP								
28...	1100	1580	14.0	10	6.5	B6	220	81

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV								
04...	14	.5	5.5	456	.62	10.3	.11	.03
DEC								
02...	16	.5	2.9	449	.61	3.39	.07	.02
JAN								
06...	15	.4	6.0	493	.67	2.13	.20	.02
FEB								
03...	17	.5	8.1	528	.72	3.42	.34	.00
MAR								
04...	16	.6	9.0	549	.75	20.8	.38	.02
APR								
06...	15	.5	5.8	470	.64	1220	.14	.01
MAY								
04...	16	.5	4.2	467	.64	2820	.11	.02
JUN								
09...	15	.5	3.4	450	.61	1930	.07	.04
JUL								
07...	13	.6	2.9	415	.56	5920	.11	.01
AUG								
03...	13	.5	4.5	401	.55	5080	.54	.03
31...	12	.5	8.6	391	.53	4740	.32	.03
SEP								
28...	11	.5	11	389	.53	1660	.54	.03

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
NOV									
04...	64	21	54	1.5	4.0	170	6	149	200
DEC									
02...	62	22	54	1.5	4.4	170	6	149	200
JAN									
06...	67	23	61	1.6	3.0	190	0	156	220
FEB									
03...	70	25	64	1.7	4.2	200	0	164	240
MAR									
04...	74	26	67	1.7	4.0	210	0	172	250
APR									
06...	68	21	54	1.5	3.7	180	6	158	210
MAY									
04...	65	22	56	1.5	3.7	180	6	158	210
JUN									
09...	63	23	55	1.5	3.3	180	0	148	200
JUL									
07...	58	21	50	1.4	4.2	170	0	139	180
AUG									
03...	59	21	46	1.3	4.0	170	0	139	170
31...	55	19	45	1.3	4.0	170	0	139	160
SEP									
28...	56	20	44	1.3	3.5	170	0	139	160

06654510 COTTONWOOD CREEK BELOW DAGLEY CREEK, NEAR BINFORD, WY

LOCATION.--Lat 42°18'53", long 105°13'33", in NW¼SE¼NE¼ sec.15, T.27 N., R.70 W., Platte County, Hydrologic Unit 10180008, on right bank 0.2 mi (0.3 km) downstream from Dagley Creek, 0.2 mi (0.3 km) upstream from tunnel, 1.3 mi (2.1 km) downstream from county bridge, and 7.0 mi (11.3 km) southeast of Binford.

DRAINAGE AREA.--54.0 mi^2 (139.9 km^2).

PERIOD OF RECORD.--August 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,340 ft (1,628 m), from topographic map.

REMARKS.--Records fair except those for winter period and period of no gage-height record, Aug. 10 to Sept. 30, which are poor. Diversions for irrigation of about 125 acres (50.6 hm^2) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 411 ft^3/s (11.6 m^3/s) July 26, 1976, gage height, 4.59 ft (1.399 m), from floodmarks, from rating curve extended above 80 ft^3/s (2.27 m^3/s) on basis of slope-area measurements at gage heights 2.98 ft (0.908 m) and 4.59 ft (1.399 m); minimum daily, 0.08 ft^3/s (0.002 m^3/s) Sept. 14, 21, 1974, Sept. 3-10, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 411 ft^3/s (11.6 m^3/s) July 26, gage height, 4.59 ft (1.399 m), from floodmarks, from rating curve extended above 80 ft^3/s (2.27 m^3/s) on basis of slope-area measurements of gage heights, 2.98 ft (0.908 m) and 4.59 ft (1.399 m); minimum daily, 0.12 ft^3/s (0.003 m^3/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.31	.20	.20	.30	2.5	3.0	32	30	4.8	8.3	1.1
2	.16	.26	.26	.21	.30	2.4	3.2	32	28	4.8	85	.98
3	.16	.26	.31	.22	.30	2.3	3.8	30	26	5.0	34	.85
4	.16	.26	.29	.22	.29	2.3	3.6	27	25	4.5	23	.76
5	.16	.26	.26	.22	.27	2.3	3.8	24	22	3.6	20	.68
6	.21	.26	.31	.22	.26	2.3	5.2	22	21	3.4	18	.58
7	.21	.26	.31	.22	.32	2.3	7.5	17	19	3.6	16	.56
8	.16	.26	.37	.22	.36	2.3	8.7	15	17	3.2	14	.58
9	.21	.26	.37	.22	.40	2.4	9.0	16	15	2.7	10	.59
10	.21	.26	.37	.22	.46	2.4	9.0	15	13	3.0	7.2	.57
11	.21	.24	.37	.22	.51	2.4	9.0	18	11	3.2	6.8	.55
12	.21	.26	.37	.23	.54	2.3	8.4	19	9.0	2.7	6.7	.55
13	.21	.26	.35	.23	.60	2.3	9.4	17	8.7	2.7	6.4	.56
14	.21	.26	.34	.24	.66	2.3	9.0	16	8.4	1.8	5.2	.57
15	.21	.26	.31	.24	.69	2.3	11	17	9.7	1.6	5.0	.58
16	.21	.26	.28	.24	.70	2.4	15	20	8.7	1.6	4.8	.58
17	.21	.26	.25	.24	.71	2.5	26	16	8.1	1.4	4.7	.58
18	.16	.26	.22	.24	.70	2.7	19	14	8.1	1.3	4.5	.58
19	.16	.21	.22	.24	.69	3.4	20	14	8.7	1.1	4.4	.60
20	.16	.19	.23	.25	.68	3.0	19	17	7.5	1.2	4.0	.60
21	.16	.19	.24	.25	.66	2.9	19	24	6.6	1.1	3.7	.59
22	.26	.19	.24	.26	.70	3.0	18	26	6.9	1.0	3.4	.58
23	.37	.20	.24	.26	.80	3.2	15	75	6.6	1.0	3.0	.58
24	.37	.20	.25	.26	.96	3.4	13	73	6.3	1.0	2.6	.58
25	.36	.19	.25	.24	1.4	3.6	12	65	5.2	1.0	2.3	.58
26	.36	.19	.26	.25	1.9	3.8	14	74	4.8	17	2.0	.58
27	.35	.18	.26	.25	2.0	3.6	22	51	5.0	18	1.9	.58
28	.35	.18	.26	.26	2.1	3.6	24	42	5.0	6.0	1.8	.59
29	.34	.17	.26	.27	2.4	3.4	34	36	4.8	4.3	1.5	.58
30	.33	.17	.27	.29	---	3.2	34	45	4.5	4.5	1.3	.56
31	.32	---	.27	.30	---	3.0	---	36	---	4.8	1.1	---
TOTAL	7.28	6.97	8.79	7.43	22.66	85.8	407.6	945	359.6	116.9	312.6	18.80
MEAN	.23	.23	.28	.24	.78	2.77	13.6	30.5	12.0	3.77	10.1	.63
MAX	.37	.31	.37	.30	2.4	3.8	34	75	30	18	85	1.1
MIN	.12	.17	.20	.20	.26	2.3	3.0	14	4.5	1.0	1.1	.55
AC-FT	14	14	17	15	45	170	808	1870	713	232	620	37

CAL YR 1975 TOTAL 729.40 MEAN 2.00 MAX 18 MIN .08 AC-FT 1450
WTR YR 1976 TOTAL 2299.43 MEAN 6.28 MAX 85 MIN .12 AC-FT 4560

06654520 COTTONWOOD CREEK BELOW TUNNEL OUTLET, NEAR BINFORD, WY

LOCATION.--Lat 42°18'27", long 105°13'08", in SE¼SW¼SW¼ sec.14, T.27 N., R.70 W., Platte County, Hydrologic Unit 10180008, on right bank 700 ft (213 m) downstream from tunnel outlet, 1.9 mi (3.1 km) downstream from Dagley Creek, 2.7 mi (4.3 km) downstream from county bridge, and 7.5 mi (12.1 km) southeast of Binford.

DRAINAGE AREA.--57.2 mi² (148.1 km²).

PERIOD OF RECORD.--August 1974 to September 1976 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 5,240 ft (1,597 m), from topographic map.

REMARKS.--Records poor. Diversions for irrigation of about 125 acres (50.6 hm²) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 238 ft³/s (6.74 m³/s) Aug. 2, 1976, gage height, 2.82 ft (0.860 m), from rating curve extended above 70 ft³/s (1.98 m³/s) on basis of slope-area measurement at gage height 2.46 ft (0.750 m); no flow most of each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 238 ft³/s (6.74 m³/s) Aug. 2, gage height, 2.82 ft (0.860 m), from rating curve extended above 70 ft³/s (1.98 m³/s) on basis of slope-area measurement at gage height 2.46 ft (0.750 m); no flow most of year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1						0	1.1	25	23	.50	.45	
2						0	1.4	24	20	.50	85	
3						0	1.9	23	18	.45	28	
4						0	1.8	19	17	.40	15	
5						0	1.8	14	14	.16	13	
6						0	3.1	12	13	.03	11	
7						0	4.8	7.9	13	0	8.2	
8						0	6.2	6.2	10	0	6.4	
9						0	6.6	7.4	7.9	0	5.2	
10						0	6.4	7.4	5.7	.60	3.1	
11						0	6.4	7.6	5.2	1.0	2.6	
12						0	6.2	9.2	4.4	.55	2.6	
13						0	6.8	7.6	4.2	.45	2.2	
14						0	6.6	6.9	4.2	.02	1.8	
15						.22	8.6	7.4	4.6	0	1.4	
16						.36	15	10	4.2	0	1.2	
17						.40	23	7.1	3.3	0	.93	
18						.50	23	6.2	3.7	0	.79	
19						1.2	24	5.7	4.2	0	.31	
20						1.1	19	5.9	3.9	0	.04	
21						.70	18	12	2.2	0	0	
22						1.1	16	16	2.0	0	0	
23						1.3	12	81	2.2	0	0	
24						1.5	11	79	2.2	0	0	
25						1.9	9.8	67	1.7	0	0	
26						2.0	11	81	.93	13	0	
27						1.8	19	52	.79	7.4	0	
28						1.6	21	36	.86	.31	0	
29						1.6	27	30	.67	.05	0	
30					---	1.3	27	40	.50	.02	0	
31		---			---	1.2	---	30	---	.01	0	---
TOTAL	0	0	0	0	0	19.78	345.5	743.5	197.55	25.45	189.22	0
MEAN	0	0	0	0	0	.64	11.5	24.0	6.59	.82	6.10	0
MAX	0	0	0	0	0	2.0	27	81	23	13	85	0
MIN	0	0	0	0	0	0	1.1	5.7	.50	0	0	0
AC-FT	0	0	0	0	0	39	685	1470	392	50	375	0

CAL YR 1975 TOTAL 296.28 MEAN .81 MAX 14 MIN 0 AC-FT 588
WTR YR 1976 TOTAL 1521.00 MEAN 4.16 MAX 85 MIN 0 AC-FT 3020

06655500 GUERNSEY RESERVOIR NEAR GUERNSEY, WY

LOCATION.--Lat 42°17'23", long 104°45'48", in NE¼NW¼ sec.27, T.27 N., R.66 W., Platte County, Hydrologic Unit 10180008, on gate structure at right end of dam on North Platte River and 1.2 mi (1.9 km) northwest of Guernsey.

DRAINAGE AREA (REVISED).--16,224 mi^2 (42,020 km^2), of which 1,216 mi^2 (3,149 km^2) is probably noncontributing. The 3,959 mi^2 (10,254 km^2) in Great Divide Basin is not included.

PERIOD OF RECORD.--January 1928 to current year. Prior to October 1950 monthend figures only, published in WSP 1310.

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,370.00 ft (1,331.976 m) above mean sea level (levels by Bureau of Reclamation); gage readings have been reduced to elevations above mean sea level. Prior to Sept. 20, 1966, nonrecording gages at same datum.

REMARKS.--Reservoir is formed by rock-fill dam completed in July 1927. Capacity, 45,230 acre-ft (55.8 hm^3) at elevation 4,420 ft (1,347.2 m), top of spillway gate. Dead storage is negligible. Figures given herein represent total contents. Usable contents published prior to October 1956. Water is used for irrigation in eastern Wyoming and western Nebraska and for development of power.

COOPERATION.--Records furnished by Bureau of Reclamtion.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 73,240 acre-ft (90.3 hm^3) Oct. 17, 1929, elevation, 4,420.95 ft (1,347.506 m); minimum daily, 30 acre-ft (0.0370 hm^3) Oct. 5, 6, 1958, elevation, 4,361.50 ft (1,329.385 m), and Oct. 18 to Nov. 3, 1969, elevation, 4,367.70 ft (1,331.275 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 39,400 acre-ft (48.6 hm^3) May 9, 12, 13; maximum daily elevation, 4,417.48 ft (1,346.448 m) May 12, 13; minimum daily contents, 131 acre-ft (0.162 hm^3) Oct. 28, elevation, 4,370.49 ft (1,332.125 m).

Capacity table (elevation, in feet, and contents, in acre-feet)

4,370	105	4,390	3,530	4,410	24,100
4,375	477	4,395	5,870	4,415	34,000
4,380	1,060	4,400	9,840	4,418	40,600
4,385	2,010	4,405	15,900		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12900	646	2780	4150	5400	6950	12800	36600	35700	35200	21900	31300
2	15800	737	2850	4170	5460	6990	14800	36700	35300	35200	27000	31300
3	17800	844	2920	4180	5510	7030	16700	37000	35000	35600	30000	31300
4	18600	947	2980	4200	5560	7080	18600	36800	35000	35700	30000	31500
5	17400	1050	3020	4230	5590	7130	20400	35800	35000	35700	29900	31500
6	15600	1150	3080	4270	5640	7190	22500	35200	35200	35700	29800	31400
7	13900	1260	3120	4320	5670	7240	24600	35400	35400	35600	30000	31300
8	11700	1350	3160	4360	5710	7300	26500	37200	36600	35600	29900	31500
9	9530	1450	3220	4410	5790	7360	28900	39400	37800	35300	29600	31500
10	7360	1540	3270	4430	5870	7420	30900	39200	38800	34900	29200	31600
11	5190	1630	3310	4480	5940	7500	32700	39300	37600	32600	28800	31600
12	3580	1690	3360	4520	6000	7500	34400	39400	36400	28300	28900	31500
13	2580	1770	3400	4560	6060	7540	35300	39400	36500	23800	29000	31400
14	1690	1850	3430	4600	6130	7600	35300	38900	36100	19400	29100	31500
15	952	1920	3460	4640	6180	7650	35500	38200	36500	15600	29200	31500
16	771	1970	3510	4690	6250	7700	34700	37600	36500	10500	29400	31200
17	756	2050	3550	4740	6300	7760	34300	37400	36100	5930	29900	30800
18	726	2120	3590	4800	6350	7810	34000	36400	35500	4350	30400	30300
19	696	2150	3630	4840	6380	7840	33800	35700	35100	2900	30800	29900
20	668	2180	3660	4880	6450	7970	33800	34600	34500	3170	31200	29600
21	558	2250	3700	4930	6480	7980	33800	34500	33900	2980	31200	29200
22	435	2310	3750	4980	6530	8040	34500	35700	33500	2990	31200	28800
23	310	2380	3780	5040	6580	8100	34600	36400	34200	2890	31200	28700
24	217	2430	3820	5080	6640	8140	34500	34700	35000	2600	31200	29100
25	219	2470	3860	5110	6700	8170	34600	35300	35700	2490	31200	29700
26	224	2530	3900	5160	6740	8210	35000	36700	35900	2450	31300	29900
27	224	2590	3950	5200	6840	8230	35300	37200	35700	2370	31200	30100
28	131	2670	3990	5230	6850	8270	35400	36900	35200	4100	31500	31100
29	187	2710	4030	5270	6890	8330	35300	37000	34300	8930	31500	31900
30	337	2720	4100	5310	---	9240	36000	36400	35300	13400	31400	31700
31	487	---	4150	5350	---	10800	---	36200	---	17400	31300	---
MAX	18600	2720	4150	5350	6890	10800	36000	39400	38800	35700	31500	31900
MIN	131	646	2780	4150	5400	6950	12800	34500	33500	2370	21900	28700
(†)	4,375.10	4,387.60	4,391.55	4,394.07	4,396.55	4,400.93	4,415.93	4,416.01	4,415.58	4,405.99	4,413.70	4,413.87
(‡)	-11,513	+2,233	+1,430	+1,200	+1,540	+3,910	+25,200	+200	-900	-17,900	+13,900	+400

CAL YR 1975 MAX 40800 MIN 131 ‡ -1680
WTR YR 1976 MAX 39400 MIN 131 ‡+19700

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY

LOCATION.--Lat 42°16'50", long 104°45'15", in SE¼SE¼ sec.27, T.27 N., R.66 W., Platte County, Hydrologic Unit 10180008, on right bank 1.0 mi (1.6 km) northwest of Guernsey and 1.1 mi (1.8 km) downstream from Guernsey Dam.

DRAINAGE AREA (REVISED).--16,237 mi² (42,054 km²), of which 1,216 mi² (3,149 km²) is probably noncontributing. The 3,959 mi² (10,254 km²) in Great Divide Basin is not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1900 to current year (no winter records prior to 1903). Monthly discharge only for some periods, published in WSP 1310. Published as "near Guernsey" 1900-1901, 1904; as "at Guernsey" 1902-3, 1905-8, March to October 1912; as "at Whalen" 1909; as North Platte River and Interstate Canal at Whalen 1910-11, 1913-16; and as "above Whalen" 1917-27.

REVISED RECORDS.--WSP 1310: 1903-4, 1924. WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,340 ft (1,323 m), from topographic map. Prior to Nov. 17, 1908, and Mar. 30 to Oct. 31, 1912, nonrecording gages downstream at several sites within 0.8 mi (1.3 km) at different datums. May 1, 1909, to Dec. 31, 1927, nonrecording gages at different datums on river and diversion canals at Whalen Dam about 9.0 mi (14.5 km) downstream. Jan. 1, 1928, to Sept. 30, 1964, water-stage recorder at present site and datum 1.50 ft (0.457 m) higher.

REMARKS.--Records good except those below 500 ft³/s (14.2 m³/s), which are poor. Flow completely regulated by Guernsey Reservoir since 1927. (See sta 06655500.) Small diversions for irrigation between this station and diversion dam at Whalen. Natural flow of stream affected by transbasin diversions, storage reservoirs, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Thirty-seven discharge measurements furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,000 ft³/s (850 m³/s) June 2 or 3, 1908, gage height, 11.5 ft (3.51 m), from floodmark, site and datum then in use, from rating curve extended above 13,000 ft³/s (368 m³/s), no flow Feb. 28, 1927, Nov. 19 to Dec. 8, Dec. 10-12, 14, 15, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,250 ft³/s (177 m³/s) July 31, gage height, 6.63 ft (2.021 m); minimum daily, 1.4 ft³/s (0.040 m³/s) Nov. 1-30, Dec. 2-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1120	1.4	1.5	1.8	1.9	2.2	7.0	1180	1070	4600	4710	4480
2	1150	1.4	1.4	1.9	1.9	2.0	18	1220	1060	4880	4480	4420
3	1140	1.4	1.4	1.9	1.9	2.1	24	1210	1050	5070	4420	4410
4	1130	1.4	1.4	1.9	1.9	2.2	30	1200	1020	5190	4450	4420
5	1120	1.4	1.4	1.9	1.9	2.2	33	1370	990	5290	4430	4280
6	1110	1.4	1.4	1.8	1.9	2.2	28	1410	959	5250	4450	4240
7	1110	1.4	1.4	1.9	1.9	2.2	21	1370	964	5250	4400	4170
8	1100	1.4	1.5	1.9	2.1	2.2	20	1390	1000	5230	4500	4070
9	1100	1.4	1.5	1.9	2.1	2.2	19	1450	1070	5300	4590	3890
10	1100	1.4	1.5	1.9	2.1	2.3	18	2090	1160	5450	4650	3690
11	1090	1.4	1.5	1.8	2.0	1.8	18	2330	2110	5430	4700	3630
12	836	1.4	1.5	2.0	2.1	1.8	19	2460	2840	5480	4750	3590
13	560	1.4	1.5	2.0	2.1	2.3	20	2540	3080	5550	4800	3550
14	488	1.4	1.5	1.8	2.2	2.2	434	2710	3170	5480	4850	3490
15	416	1.4	1.6	1.9	2.2	2.2	871	2830	3120	5470	4880	3510
16	144	1.4	1.6	1.9	2.2	2.2	1020	2810	3110	5490	4840	3510
17	53	1.4	1.6	1.9	2.1	2.3	1140	2870	3040	5480	4750	3490
18	50	1.4	1.6	2.0	2.1	2.2	1140	2980	3020	5470	4720	3480
19	50	1.4	1.6	2.0	2.1	2.2	1140	3280	3030	5420	4700	3430
20	49	1.4	1.6	2.0	2.0	1.9	1140	3690	3300	5390	4690	3400
21	46	1.4	1.6	1.9	2.4	2.0	1310	3930	3340	5260	4650	3410
22	45	1.4	1.6	2.0	2.2	2.1	1120	3920	3270	5180	4630	3360
23	47	1.4	1.6	2.0	2.2	2.2	1200	3370	3070	5130	4600	3310
24	47	1.4	1.6	1.9	2.1	2.2	1170	2870	3060	5150	4600	3260
25	46	1.4	1.7	1.9	2.1	2.0	1180	2590	3080	5130	4600	2970
26	43	1.4	1.7	1.9	2.1	2.1	1180	2000	3270	5110	4600	2680
27	42	1.4	1.7	2.0	2.1	2.2	1190	1610	3240	4980	4600	2320
28	42	1.4	1.7	2.0	2.2	2.1	1200	1140	3440	4890	4540	1470
29	38	1.4	1.7	2.0	2.2	2.0	1600	1140	4150	4820	4500	1080
30	23	1.4	1.7	1.9	---	2.1	1920	1130	4490	4780	4510	1080
31	1.5	---	1.8	1.9	---	2.4	---	1100	---	5050	4510	---
TOTAL	15336.5	42.0	48.4	59.5	60.3	66.3	20230.0	67190	74573	161650	143100	102090
MEAN	495	1.40	1.56	1.92	2.08	2.14	674	2167	2486	5215	4616	3403
MAX	1150	1.4	1.8	2.0	2.4	2.4	1920	3930	4490	5550	4880	4480
MIN	1.5	1.4	1.4	1.8	1.9	1.8	7.0	1100	959	4600	4400	1080
AC-FT	30420	83	96	118	120	132	40130	133300	147900	320600	283800	202500

CAL YR 1975 TOTAL 606384.0 MEAN 1661 MAX 6250 MIN 1.4 AC-FT 1203000
WTR YR 1976 TOTAL 584446.0 MEAN 1597 MAX 5550 MIN 1.4 AC-FT 1159000

06656000 NORTH PLATTE RIVER BELOW GUERNSEY RESERVOIR, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947-58, 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
OCT											
07...	1545	1100	15.0	250	110	62	23	46	1.3	3.5	160
NOV											
05...	1045	1.4	10.0	300	87	79	25	52	1.3	5.1	260
DEC											
03...	1400	1.4	5.0	280	75	67	28	47	1.2	4.7	250
JAN											
10...	1100	1.9	1.0	300	79	75	27	48	1.2	5.4	270
22...	1200	2.0	5.0	310	80	79	27	52	1.3	5.4	280
MAR											
01...	1230	2.4	7.0	290	72	75	26	52	1.3	5.1	260
APR											
05...	1150	34	10.0	280	90	76	23	46	1.2	5.1	220
MAY											
04...	1110	1210	9.5	250	92	65	22	54	1.5	4.0	180
JUN											
08...	1025	1030	18.0	290	140	62	22	51	1.4	3.3	170
JUL											
13...	0945	5520	19.0	250	110	63	22	53	1.5	3.7	170
AUG											
13...	1230	4840	21.0	220	84	57	20	48	1.4	3.7	160
SEP											
14...	0830	3480	--	200	77	50	17	39	1.2	3.3	150

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
OCT											
07...	6	141	180	12	.5	8.7	418	.57	1240	.18	.02
NOV											
05...	0	213	190	8.8	.6	16	501	.68	1.89	.34	.12
DEC											
03...	0	205	170	12	.5	13	460	.63	1.74	.07	.04
JAN											
10...	0	221	170	13	.5	15	488	.66	2.50	.23	.05
22...	0	230	180	12	.5	18	512	.70	2.76	.27	.04
MAR											
01...	3	218	170	12	.5	17	493	.67	3.19	.25	.03
APR											
05...	6	190	180	12	.5	15	474	.64	43.5	.34	.04
MAY											
04...	6	158	200	14	.5	3.9	459	.62	1500	.07	.02
JUN											
08...	6	149	180	14	.5	4.5	430	.58	1200	.07	.01
JUL											
13...	0	139	190	12	.5	3.7	436	.59	6500	.11	.02
AUG											
13...	3	136	170	11	.6	5.5	400	.54	5230	.23	.05
SEP											
14...	0	123	140	10	.5	9.9	350	.48	3290	.11	.02

06657000 NORTH PLATTE RIVER BELOW WHALEN DIVERSION DAM, WY

LOCATION.--Lat 42°14'20", long 104°36'29", in NE¼SW¼ sec.12, T.26 N., R.65 W., Goshen County, Hydrologic Unit 10180009, on left bank 0.2 mi (0.3 km) downstream from Cottonwood Draw, 2.5 mi (4.0 km) downstream from Whalen diversion dam, and 4.8 mi (7.7 km) northwest of Fort Laramie.

DRAINAGE AREA (REVISED).--16,425 mi² (42,541 km²), of which 1,219 mi² (3,157 km²) is probably noncontributing. The 3,959 mi² (10,254 km²) in Great Divide basin is not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1909 to current year. Prior to Apr. 16, 1938, published as "below Whalen", and Apr. 16, 1938, to Sept. 30, 1974, as "at recorder station, below Whalen".

REVISED RECORDS.--WSP 1310: 1924. WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,250 ft (1,295 m), from topographic map. Prior to Apr. 16, 1938, nonrecording gages at Whalen diversion dam and canals 2.5 mi (4.0 km) upstream at different datums. Apr. 16, 1938, to Nov. 17, 1955, water-stage recorder at site 200 ft (61 m) downstream, and Nov. 18, 1955, to Feb. 16, 1972, at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Flow regulated by Whalen diversion dam 2.5 mi (4.0 km) upstream. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Twenty-three discharge measurements furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 22,000 ft³/s (623 m³/s) June 26, 1955, gage height, 9.85 ft (3.002 m), from rating curve extended above 4,500 ft³/s (127 m³/s) on basis of studies of peak flow measurements of upstream floods; no flow at times in 1910, 1916, 1925-27, 1962-64, 1967, 1970-71, 1975-76.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,340 ft³/s (66.3 m³/s) July 31, gage height, 4.31 ft (1.314 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	150	22	3.4	.96	1.6	.00	.00	348	262	1290	1190	860
2	144	17	4.1	.70	1.4	.00	.00	190	258	1460	1100	790
3	136	15	3.3	.49	1.1	.00	.00	198	246	1630	1000	780
4	130	15	2.5	.35	.83	.00	.00	180	238	1670	1010	790
5	130	13	1.9	.42	.63	.00	1.2	276	187	1780	1000	690
6	122	12	1.6	.83	.49	.00	12	368	170	1770	989	663
7	110	11	1.6	1.1	.56	.00	16	347	163	1770	945	636
8	107	11	1.6	.83	1.1	.00	10	368	159	1780	945	609
9	107	10	1.6	.70	2.5	.00	7.2	368	210	1780	1040	552
10	102	9.0	1.5	.83	2.9	.00	5.4	362	254	1880	1060	492
11	89	8.2	1.5	.96	2.4	.00	4.3	394	524	1860	1100	436
12	114	8.2	1.4	.96	1.7	.00	4.1	380	870	1860	1160	387
13	114	7.6	1.2	.96	1.4	.00	4.1	429	945	1880	1230	374
14	433	6.8	1.1	.83	.83	.00	18	499	1020	1860	1280	374
15	443	6.0	1.2	.96	.63	.00	80	627	945	1840	1300	394
16	310	5.7	1.6	1.1	.63	.00	338	618	978	1850	1280	408
17	127	5.4	1.4	1.6	.63	.00	266	627	923	1850	1220	394
18	102	5.2	1.2	2.2	.56	.00	198	618	912	1860	1200	380
19	92	4.1	1.5	2.4	.49	.00	206	710	890	1840	1190	374
20	85	3.5	1.6	2.0	.42	.00	214	901	870	1820	1160	374
21	79	4.9	1.5	2.0	.35	.00	382	1040	850	1750	1120	394
22	72	4.6	1.6	2.0	.28	.00	222	1073	820	1630	1110	387
23	78	3.8	1.6	2.0	.21	.00	187	912	880	1600	1110	374
24	76	3.8	1.6	1.9	.14	.00	190	636	830	1600	1080	344
25	71	3.8	1.9	1.6	.07	.00	187	429	760	1570	1060	290
26	66	3.6	1.9	1.4	.00	.00	194	285	818	1560	1010	266
27	60	3.8	2.0	1.4	.10	.00	214	242	790	1490	962	250
28	60	3.4	1.9	1.6	.07	.00	202	250	800	1420	912	406
29	58	3.1	1.2	1.5	.00	.00	434	242	1020	1370	899	230
30	54	1.9	1.7	1.9	---	.00	923	285	1290	1290	886	262
31	36	---	1.7	1.7	---	.00	---	290	---	1500	873	---
TOTAL	3857	232.5	55.4	40.18	24.02	.00	4519.30	14489	19882	52110	33421	13960
MEAN	124	7.75	1.79	1.30	.83	.000	151	467	663	1681	1078	465
MAX	443	22	4.1	2.4	2.9	.00	923	1070	1290	1880	1300	860
MIN	36	1.9	1.1	.35	.00	.00	.00	180	159	1290	873	230
AC-FT	7650	461	110	80	48	.00	8960	28740	39440	103400	66290	27690

CAL YR 1975 TOTAL 173742.19 MEAN 476 MAX 2780 MIN .00 AC-FT 344600
WTR YR 1976 TOTAL 142590.40 MEAN 390 MAX 1880 MIN .00 AC-FT 282800

06657000 NORTH PLATTE RIVER BELOW WHALEN DIVERSION DAM, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to September 1976 (discontinued).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)
OCT							
02...	1030	159	805	7.4	8.0	20	10.6
10...	1030	107	645	7.4	8.0	20	10.4
17...	1200	124	960	7.6	8.0	25	10.4
30...	1100	56	620	7.5	8.0	15	11.6
NOV							
07...	1100	12	860	7.5	7.0	15	11.5
14...	1100	7.2	850	7.4	6.0	15	11.9
20...	1115	2.9	795	7.5	2.0	15	10.5
28...	1130	3.4	640	7.5	.0	15	9.6
DEC							
04...	1115	2.5	675	7.4	4.0	15	10.0
10...	1130	1.5	705	7.5	5.0	15	10.8
18...	1100	1.2	810	7.5	.0	20	10.6
24...	1030	1.6	615	7.5	.0	20	10.6
JAN							
15...	1245	.96	500	7.4	2.0	15	9.6
FEB							
19...	1100	.56	490	7.5	3.0	15	10.7
APR							
16...	1130	315	685	7.4	9.0	20	9.7
MAY							
14...	1030	471	730	7.3	13.0	15	9.9
JUN							
18...	1115	1070	815	7.4	14.0	15	10.1
JUL							
09...	1300	1500	610	7.5	23.0	15	8.9
16...	1300	1860	680	7.4	22.0	25	9.7
23...	1130	1600	860	7.3	21.0	15	9.8
30...	1200	1320	870	7.5	20.0	20	8.9
AUG							
06...	1230	1000	720	7.4	19.0	15	8.3
13...	1130	A1230	680	7.4	22.0	10	9.0
20...	1150	A1160	625	7.5	22.0	10	9.3
27...	1345	A962	600	7.6	21.0	10	9.2
SEP							
03...	1330	780	610	7.7	21.0	10	8.0
10...	1200	536	600	7.4	14.0	10	7.9
17...	1130	394	600	7.5	16.0	15	7.9
24...	1200	305	695	7.4	14.0	--	7.8

A Daily mean discharge.

06657500 LARAMIE RIVER NEAR GLENDEVEY, CO

LOCATION.--Lat 40°48'02", long 105°52'40", in NW¼NW¼ sec.36, T.10 N., R.76 W., Larimer County, Hydrologic Unit 10180010, on left bank 200 ft (61 m) downstream from bridge on county road, 350 ft (110 m) downsteam from Nunn Creek, 1,300 ft (400 m) upstream from Stub Creek, and 3.0 mi (4.8 km) east of Glendevey.

DRAINAGE AREA.--101 mi^2 (262 km^2).

PERIOD OF RECORD.--June 1904 to October 1905, August 1910 to current year. Monthly discharge only for some periods, published in WSP 1310. Published as "at Glendevey" 1905, 1910-18.

REVISED RECORDS.--WSP 469: 1911-12. WSP 506: Drainage area. WSP 1310: 1905, 1914. WSP 1918: 1918 (monthly runoff).

GAGE.--Water-stage recorder. Altitude of gage is 8,230 ft (2,509 m), from topographic map. See WSP 1730 for history of changes prior to Sept. 20, 1935.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 700 acres (2.83 km^2) of hay meadows above station. Transbasin diversions above station to Cache la Poudre River and tributaries (see elsewhere in this report).

AVERAGE DISCHARGE.--67 years, 73.7 ft^3/s (2.087 m^3/s), 53,400 acre-ft/yr (65.8 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,240 ft^3/s (63.4 m^3/s) June 9, 1923, gage height, 4.55 ft (1.387 m), site and datum then in use, from floodmarks, from rating curve extended above 1,400 ft^3/s (40 m^3/s); minimum daily recorded, 5.0 ft^3/s (0.14 m^3/s) Feb. 14, 15, 1911, but may have been less during winter periods of no gage-height record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 342 ft^3/s (9.69 m^3/s) June 9, gage height, 2.09 ft (0.637 m); minimum daily, 14 ft^3/s (0.40 m^3/s) Jan. 1, 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	26	20	14	15	15	18	36	222	116	118	39
2	28	25	21	14	15	15	18	42	225	110	141	37
3	27	25	20	15	15	15	20	50	233	85	177	35
4	26	25	19	15	15	15	21	61	244	79	134	33
5	25	25	19	15	15	15	22	64	254	68	113	32
6	24	25	19	15	15	15	23	69	271	64	96	31
7	24	24	18	15	15	15	20	75	247	59	86	33
8	27	24	18	15	15	16	21	83	255	52	81	35
9	26	24	18	15	15	16	25	83	292	48	118	33
10	30	24	18	15	15	16	30	94	242	47	90	31
11	29	25	18	15	15	16	34	113	227	44	86	29
12	26	25	18	15	15	16	40	132	207	40	83	30
13	25	25	17	15	15	16	41	72	162	38	74	34
14	26	25	17	15	15	16	37	98	137	35	73	31
15	25	23	17	15	15	16	33	124	145	34	65	40
16	28	25	17	15	15	16	33	94	130	32	60	53
17	26	24	17	15	15	16	27	111	118	30	58	36
18	27	24	16	15	15	16	24	152	137	115	62	32
19	26	23	16	15	15	16	23	162	137	162	61	30
20	24	22	16	15	15	16	25	179	105	154	57	33
21	24	20	16	15	15	16	29	201	111	150	54	33
22	23	19	15	15	15	16	34	232	133	127	53	31
23	23	18	15	15	15	16	38	205	177	114	51	34
24	22	18	15	15	15	16	35	189	122	108	51	33
25	21	18	15	15	15	16	36	193	90	122	47	36
26	23	19	15	15	15	16	33	189	81	122	65	39
27	24	19	15	15	15	16	30	206	86	130	58	42
28	25	19	15	15	15	16	33	222	93	107	47	38
29	26	19	15	15	15	16	38	225	98	97	43	33
30	26	19	15	15	---	17	40	243	97	93	41	30
31	26	---	15	15	---	18	---	222	---	101	40	---
TOTAL	791	676	525	463	435	492	881	4221	5076	2683	2363	1036
MEAN	25.5	22.5	16.9	14.9	15.0	15.9	29.4	136	169	86.5	76.2	34.5
MAX	30	26	21	15	15	18	41	243	292	162	177	53
MIN	21	18	15	14	15	15	18	36	81	30	40	29
AC-FT	1570	1340	1040	918	863	976	1750	8370	10070	5320	4690	2050

CAL YR 1975 TOTAL 26630 MEAN 73.0 MAX 609 MIN 13 AC-FT 52820
WTR YR 1976 TOTAL 19642 MEAN 53.7 MAX 292 MIN 14 AC-FT 38960

06659500 LARAMIE RIVER AND PIONEER CANAL NEAR WOODS, WY

LOCATION.--River: Lat 41°08'17", long 105°58'49", in NW¼SE¼ sec.36, T.14 N., R.77 W., Albany County, Hydrologic Unit 10180010, on left bank 100 ft (30 m) upstream from diversion dam for Pioneer Canal, 2.2 mi (3.5 km) downstream from Fox Creek, 2.5 mi (4.0 km) northeast of Woods, and 23 mi (37 km) southwest of Laramie.

Canal: Lat 41°08'21", long 105°58'45", in SE¼NE¼ sec.36, T.14 N., R.77 W., Albany County, on left bank 400 ft (122 m) downstream from headgate.

DRAINAGE AREA.--434 mi^2 (1,124 km^2). Drainage area at mouth, 4,565 mi^2 (11,823 km^2).

PERIOD OF RECORD.--April 1912 to September 1924, October 1926 to September 1927, October 1931 to current year (no winter records since 1972). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1918-20, 1922, 1924. WSP 1710: Drainage area.

GAGE.--River: Water-stage recorder and concrete control. Datum of gage is 7,388.99 ft (2,252.164 m) above mean sea level. Apr. 16 to Nov. 15, 1912, nonrecording gage and Nov. 16, 1912, to Sept. 22, 1915, water-stage recorder 90 ft (27 m) downstream between dam crest and canal headgates at datum 1.00 ft (0.305 m) higher. Sept. 23, 1915, to Sept. 30, 1924, Apr. 19 to Sept. 30, 1927, and Apr. 11, 1932, to Sept. 30, 1935, water-stage recorder at site 50 ft (15 m) downstream at datum 1.00 ft (0.305 m) higher. Oct. 1, 1935, to July 13, 1950, water-stage recorder at site 50 ft (15 m) downstream at present datum.

Canal: Water-stage recorder and Parshall flume. Altitude of gage is 7,390 ft (2,750 m), from topographic map. Apr. 16, 1912, to Apr. 10, 1923, nonrecording gage; Apr. 11, 1923, to Sept. 30, 1924, and Apr. 19 to June 9, 1927, water-stage recorder; June 10 to Sept. 30, 1927, and Apr. 11, 1932, to May 8, 1938, nonrecording gage; May 9, 1938, to Apr. 26, 1966, water-stage recorder at site 1.5 mi (2.4 km) downstream at different datums. Apr. 27, 1966, to May 8, 1967, at present site, at datum 0.06 ft (0.018 m) lower.

REMARKS.--Records good. Pioneer Canal diverts from left bank of river at diversion dam 100 ft (30 m) downstream for irrigation in vicinity of Laramie. Records show combined flow of river and canal. Three small reservoirs above station in Wyoming, total capacity, about 600 acre-ft (0.740 hm^3) for irrigation, stock water, and domestic use. Diversions for irrigation of about 5,200 acres (21.0 km^2) above station. Transbasin diversions above station to Cache la Poudre River and tributaries (see page 484).

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD (combined flow river and canal).--Maximum discharge, 5,060 ft^3/s (143 m^3/s) June 10, 1923 (river discharge by computation of peak flow over dam); minimum daily (1950-72), 10 ft^3/s (0.28 m^3/s) Aug. 30, Sept. 2-5, 1954.

EXTREMES FOR CURRENT YEAR (combined flow river and canal).--Maximum discharge, 805 ft^3/s (22.8 m^3/s) May 23; minimum daily during period of operation, 48 ft^3/s (1.36 m^3/s) Sept. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							80	120	644	257	175	65
2							89	128	662	265	229	64
3							90	146	634	237	395	59
4							102	166	655	204	268	54
5							108	191	665	183	218	52
6							121	205	689	164	178	51
7							97	214	658	164	153	49
8							80	218	626	156	142	52
9							90	220	652	136	164	56
10							105	224	597	128	177	53
11							114	256	549	123	153	51
12							127	316	517	101	159	48
13							132	268	456	99	145	51
14							132	260	414	91	133	56
15							123	404	410	83	125	54
16							123	354	461	78	118	86
17							109	324	403	74	109	80
18							93	380	507	75	110	61
19							87	444	498	211	112	55
20							85	492	377	222	103	53
21							91	654	329	234	95	54
22							103	717	327	201	91	54
23							119	720	400	172	87	52
24							117	614	366	152	93	60
25							113	620	292	157	86	64
26							116	570	247	221	78	69
27							107	576	230	225	84	74
28							101	625	226	186	97	74
29							117	648	229	157	82	66
30							128	690	230	143	72	58
31							---	648	---	153	66	---
TOTAL							3199	12412	13950	5052	4297	1775
MEAN							107	400	465	163	139	59.2
MAX							132	720	689	265	395	86
MIN							80	120	226	74	66	48
AC-FT							6350	24620	27670	10020	8520	3520

06659580 SAND CREEK AT COLORADO-WYOMING STATE LINE

LOCATION.--Lat 40°59'44", long 105°45'36", in NE¼NW¼ sec.1, T.12 N., R.75 W., Larimer County, CO, Hydrologic Unit 10180010, on left bank 200 ft (61 m) south of Colorado-Wyoming State line and 17 mi (27 km) southwest of Tie Siding, WY.

DRAINAGE AREA.--29.2 mi^2 (75.6 km).

PERIOD OF RECORD.--October 1968 to current year (no winter records since 1971).

GAGE.--Water-stage recorder. Altitude of gage is 7,620 ft (2,323 m), from topographic map.

REMARKS.--Records good. Natural flow affected by diversion above station to Cache la Poudre River basin through Wilson Supply ditch (see page484). Water imported above station from Deadman Creek in Laramie River basin is rediverted through Wilson Supply ditch but is wasted down Sand Creek at times. Diversions for irrigation of about 170 acres (69 hm^2) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 250 ft^3/s (7.08 m^3/s) June 15, 1970, gage height, 4.41 ft (1.344 m); minimum daily during period of operation, 0.13 ft^3/s (0.004 m^3/s) July 26-28, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 52 ft^3/s (1.47 m^3/s) May 23, gage height, 3.63 ft (1.106 m); minimum daily during period of operation, 0.26 ft^3/s (0.007 m^3/s) Sept. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							3.2	7.0	34	10	3.4	.82
2							3.7	7.3	33	7.3	4.0	.50
3							4.2	8.5	33	6.2	4.8	.37
4							4.2	9.6	33	5.4	4.5	.37
5							5.1	10	33	4.5	4.0	.33
6							5.4	11	32	4.0	3.0	.30
7							3.0	11	30	3.2	2.2	.26
8							2.6	12	31	2.6	1.8	.30
9							4.0	14	32	2.2	1.6	.33
10							5.1	16	30	1.6	1.4	.37
11							5.4	14	26	1.3	2.0	.50
12							6.6	18	26	1.1	2.0	.61
13							7.0	14	24	1.0	1.6	.61
14							5.9	13	25	2.0	2.0	.50
15							5.4	24	25	2.6	1.6	.61
16							6.2	26	27	3.4	1.4	1.1
17							5.4	23	20	4.5	1.2	2.2
18							4.8	30	24	4.5	1.1	1.8
19							4.5	28	27	7.3	1.0	1.3
20							4.5	35	26	8.5	1.0	1.1
21							5.1	38	22	6.6	.92	1.1
22							6.6	44	16	5.6	.92	1.2
23							8.1	47	13	4.5	1.5	1.2
24							7.3	38	13	3.7	.92	1.2
25							7.0	35	13	3.0	.72	1.3
26							7.0	33	11	2.8	.72	1.4
27							6.2	33	8.9	3.0	1.0	2.0
28							5.6	34	8.1	3.2	1.0	2.2
29							6.2	35	6.2	3.4	.92	2.0
30							7.3	35	6.6	2.6	.82	1.8
31							---	35	---	2.6	.92	---
TOTAL							162.6	738.4	688.8	124.2	55.96	29.68
MEAN							5.42	23.8	23.0	4.01	1.81	.99
MAX							8.1	47	34	10	4.8	2.2
MIN							2.6	7.0	6.2	1.0	.72	.26
AC-FT							323	1460	1370	246	111	59

06660100 LARAMIE RIVER AT HOWELL, WY

LOCATION.--Lat 41°24'50", long 105°36'56", in NE¼SE¼SE¼ sec.30, T.17 N., R.73 W., Albany County, Hydrologic Unit 10080010, at bridge on Howell road, 100 ft (30 m) downstream from bridge on Union Pacific Railroad, 0.2 mi (0.3 km) south of Howell, and 7.3 mi (11.7 km) north of Laramie.

PERIOD OF RECORD.--Water years 1974 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV								
02...	1630	71	9.0	3	10.2	810	300	190
30...	1500	E57	.5	3	7.9	84	270	140
JAN								
04...	1330	E50	.5	45	7.8	B2000	280	130
FEB								
01...	1615	31	.0	8	9.4	540	260	130
MAR								
02...	1440	E70	.0	2	10.6	160	270	160
APR								
04...	1515	57	12.0	2	10.4	110	400	250
MAY								
02...	1545	3.2	14.0	5	15.0	<1	570	390
JUN								
20...	1430	302	16.5	10	7.8	140	200	100
JUL								
18...	1300	21	21.0	1	15.9	88	450	280
AUG								
15...	1600	96	19.0	1	8.6	852	210	110
SEP								
12...	1300	8.6	15.0	7	10.6	56	620	440

B Results based on colony count outside the acceptable range (non-ideal colony count).
E Estimate.

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
NOV									
02...	69	32	47	1.2	3.0	142	116	250	17
30...	64	26	41	1.1	2.6	156	128	190	13
JAN									
04...	69	26	32	.8	3.2	180	148	180	14
FEB									
01...	58	29	37	1.0	2.7	169	139	180	15
MAR									
02...	67	26	32	.8	2.3	142	116	210	12
APR									
04...	94	41	55	1.2	3.3	187	153	350	20
MAY									
02...	120	65	94	1.7	4.9	222	182	530	42
JUN									
20...	50	19	33	1.0	2.6	126	103	140	6.3
JUL									
18...	98	50	82	1.7	4.5	213	175	390	28
AUG									
15...	48	21	43	1.3	4.1	118	97	160	12
SEP									
12...	120	77	100	1.8	5.7	216	177	600	41

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)
NOV								
02...	.4	10	499	.68	95.7	.08	--	110
30...	.4	13	428	.58	65.9	.14	--	100
JAN								
04...	.4	12	427	.58	57.6	.30	--	100
FEB								
01...	.4	10	416	.57	34.8	.11	.71	--
MAR								
02...	.4	9.9	430	.58	81.3	.04	1.5	--
APR								
04...	.4	9.8	666	.91	103	.15	.49	--
MAY								
02...	.7	6.8	975	1.33	8.42	.47	1.1	--
JUN								
20...	.3	11	324	.44	264	.03	.07	--
JUL								
18...	.6	5.7	764	1.04	43.3	.14	.47	--
AUG								
15...	.3	6.0	353	.48	91.5	.09	.23	--
SEP								
12...	.7	4.8	1070	1.46	24.8	2.6	.97	--

06660500 LARAMIE RIVER AT TWO RIVERS, WY

LOCATION.--Lat 41°28'22", long 105°43'30", in NW¼NE¼SW¼ sec.5, T.17 N., R.74 W., Albany County, Hydrologic Unit 10080010, at former gaging station, at old Two Rivers Post Office, 0.6 mi (1.0 km) upstream from Little Laramie River, and 14 mi (23 km) northwest of Laramie.

DRAINAGE AREA.--1,224 mi² (3,170 km²), of which 188 mi² (487 km²) is probably noncontributing.

PERIOD OF RECORD.--Water years 1966 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV											
02...	1545	71	8.5	310	190	70	33	55	1.6	3.3	150
30...	1345	E57	.5	280	140	67	28	35	.9	2.6	170
JAN											
04...	1215	E50	.0	300	180	70	31	37	.9	1.9	150
FEB											
01...	1530	31	.0	270	130	62	27	35	.9	3.3	170
MAR											
02...	1345	E70	.0	240	130	61	23	30	.8	2.3	140
APR											
04...	1425	57	12.0	400	240	97	39	56	1.2	3.3	190
MAY											
02...	1500	3.2	18.0	450	280	110	44	84	1.7	3.0	200
JUN											
20...	1315	302	17.5	230	120	56	23	31	.9	2.6	130
JUL											
18...	1215	21	19.5	460	270	110	47	79	1.6	2.8	230
AUG											
15...	1530	96	20.5	210	120	49	22	29	.9	1.9	110
SEP											
12...	1200	8.6	17.0	540	360	110	64	98	1.8	4.0	220

E Estimate.

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV											
02...	0	123	280	17	.6	11	543	.74	104	.09	.31
30...	0	139	200	15	.5	13	443	.60	68.2	.16	.42
JAN											
04...	0	123	220	12	.5	11	461	.63	62.2	.20	.54
FEB											
01...	0	139	180	17	.5	12	425	.58	35.6	.09	.63
MAR											
02...	0	115	190	12	.5	9.6	393	.53	74.3	.07	.36
APR											
04...	3	161	340	23	.7	9.0	363	.49	55.9	.18	.40
MAY											
02...	6	174	400	31	.6	4.4	781	1.06	6.75	.02	.14
JUN											
20...	0	107	180	6.7	.5	12	372	.51	303	.14	.10
JUL											
18...	0	189	410	26	.8	6.6	797	1.08	45.2	.16	.19
AUG											
15...	3	95	160	10	.5	3.9	339	.46	87.9	.16	.19
SEP											
12...	0	180	520	35	.8	2.6	943	1.28	21.9	.02	.12

06661000 LITTLE LARAMIE RIVER NEAR FILMORE, WY

LOCATION.--Lat 41°17'42", long 106°02'03", in SE¼NE¼SE¼ sec.4, T.15 N., R.77 W., Albany County, Hydrologic Unit 10180010, on right bank 40 ft (12 m) downstream from State Highway 130, 1.2 mi (1.9 km) west of Filmore, and 4.4 mi (7.1 km) downstream from North Fork. Prior to Sept. 8, 1976, at site 0.7 mi (1.1 km) upstream.

DRAINAGE AREA.--157 mi^2 (407 km^2). Area at site used prior to Sept. 8, 1976, 156 mi^2 (404 km^2).

PERIOD OF RECORD.--July 1902 to September 1903 (published as "near Hatton"), May 1911 to November 1926, October 1932 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1903, 1914, 1922-26. WSP 1440: 1902. WSP 1730: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 7,610 ft (2,320 m), from topographic map. Prior to Sept. 16, 1938, nonrecording gages, and Sept. 16, 1938 to Sept. 7, 1976, water-stage recorder, at sites 0.7 mi (1.1 km) upstream at different datums.

REMARKS.--Records good. Ten small reservoirs above station, combined capacity, about 160 acre-ft (0.20 hm^3), for irrigation, stock water, recreation, and domestic use. Diversions above station for irrigation of about 11,020 acres (44.6 km^2), of which about 20 acres (8.1 hm^2) lies below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--55 years (water years 1903, 1912-26, 1933-71), 103 ft^3/s (2.917 m^3/s), 74,620 acre-ft/yr (92.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,450 ft^3/s (97.7 m^3/s) June 10, 1965, gage height, 5.33 ft (1.625 m), site and datum then in use; minimum daily determined, 1.0 ft^3/s (0.028 m^3/s) Sept. 17-20, 1913.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 635 ft^3/s (18.0 m^3/s) June 6, gage height, 2.90 ft (0.884 m); minimum daily during period of operation, 23 ft^3/s (0.65 m^3/s) Sept. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							42	37	380	298	115	31
2							42	38	396	357	230	30
3							42	41	425	336	247	25
4							42	45	490	265	132	24
5							43	53	500	241	105	24
6							41	60	565	220	87	23
7							36	62	540	214	77	29
8							42	64	540	199	71	32
9							51	71	550	190	72	32
10							45	83	540	175	68	30
11							45	101	495	162	64	30
12							45	125	435	160	68	28
13							50	115	350	190	62	30
14							47	128	332	152	65	31
15							45	139	319	135	57	32
16							44	150	332	119	51	32
17							40	170	316	109	48	31
18							39	190	388	109	47	30
19							39	205	332	181	46	31
20							39	230	286	155	45	32
21							40	290	310	205	41	32
22							42	310	343	140	40	30
23							43	290	384	113	38	30
24							40	280	322	95	39	31
25							40	300	268	107	37	34
26							40	310	277	253	34	39
27							40	310	250	228	38	45
28							39	350	259	128	36	38
29							39	360	280	101	33	34
30							40	350	274	91	31	32
31							---	350	---	142	30	---
TOTAL							1262	5607	11478	5570	2154	932
MEAN							42.1	181	383	180	69.5	31.1
MAX							51	360	565	357	247	45
MIN							36	37	250	91	30	23
AC-FT							2500	11120	22770	11050	4270	1850

06661500 LITTLE LARAMIE RIVER AT TWO RIVERS, WY

LOCATION.--Lat 41°28'07", long 105°43'56", in SE¼SE¼SE¼ sec.6, T.17 N., R.74 W., Albany County, Hydrologic Unit 10080010, at former gaging station, at old Two Rivers Post Office, 0.5 mi (0.8 km) upstream from mouth, and 14 mi (23 km) northwest of Laramie.

DRAINAGE AREA.--376 mi² (974 km²), of which 58 mi² (150 km²) is probably noncontributing.

PERIOD OF RECORD.--Water years 1965 to current year.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
NOV											
02...	1445	40	7.0	200	61	52	18	30	.9	2.8	170
30...	1230	10	1.0	240	68	62	21	33	.9	1.9	210
JAN											
04...	1130	E8.0	.0	190	42	49	16	20	.6	.9	180
FEB											
01...	1330	12	.0	180	41	46	16	19	.6	1.6	170
MAR											
02...	1300	10	.0	160	37	41	14	22	.8	1.6	150
APR											
04...	1315	26	10.0	190	67	47	17	24	.8	1.6	150
MAY											
02...	1410	18	14.5	250	73	63	24	39	1.1	1.9	210
JUN											
20...	1200	442	17.0	210	54	51	21	32	1.0	3.0	190
JUL											
18...	1115	73	18.5	120	13	29	11	12	.5	.2	130
AUG											
15...	1430	46	19.0	110	28	27	10	13	.5	.5	100
SEP											
12...	1030	4.7	14.0	150	27	34	16	26	.9	2.1	150

E Estimate.

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV											
02...	0	139	120	7.1	.5	8.6	326	.44	35.2	.00	.01
30...	0	172	120	12	.5	9.6	363	.49	9.80	.00	.01
JAN											
04...	0	148	74	4.9	.3	9.8	264	.36	5.70	.02	.01
FEB											
01...	0	139	76	4.2	.3	8.3	252	.34	8.16	.00	.01
MAR											
02...	0	123	81	8.7	.4	7.3	247	.34	6.67	.00	.02
APR											
04...	0	123	99	5.2	.4	7.2	274	.37	19.2	.02	.01
MAY											
02...	3	177	150	10	.5	6.8	410	.56	19.9	.00	.02
JUN											
20...	0	156	110	8.2	.5	12	335	.46	400	.09	.03
JUL											
18...	0	107	29	1.9	.3	4.3	153	.21	30.2	.02	.02
AUG											
15...	0	82	42	1.8	.3	5.2	152	.21	18.9	.02	.01
SEP											
12...	0	123	69	9.1	.5	1.5	234	.32	2.97	.00	.01

06661585 LARAMIE RIVER NEAR BOSLER, WY

LOCATION.--Lat 41°33'17", long 107°40'58", in NW¼NW¼NE¼ sec.10, T.18 N., R.74 W., Albany County, Hydrologic Unit 10180010, on left bank 50 ft (15 m) upstream from bridge on U.S. Highways 30 and 287, 0.2 mi (0.3 km) northwest of Bosler Junction, 1.7 mi (2.7 km) south of Bosler, and 2.0 mi (3.2 km) downstream from Soil Bank Boughton Canal diversion dam.

DRAINAGE AREA.--1,790 mi^2 (4,636 km^2), of which 283 mi^2 (733 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1972 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,030 ft (2,140 m), from topographic map.

REMARKS.--Records fair except those for winter period, which are poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversion above station for irrigation of about 54,700 acres (221 km^2), of which about 2,300 acres (9.31 km^2) lies below station, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,630 ft^3/s (46.2 m^3/s) June 19, 1973, gage height, 6.72 ft (2.048 m); maximum gage height, 8.40 ft (2.560 m) Apr. 22, 1973 (backwater from ice jam); minimum daily discharge, 15 ft^3/s (0.42 m^3/s) May 4, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 602 ft^3/s (17.0 m^3/s) June 21, gage height, 4.14 ft (1.262 m); minimum daily, 17 ft^3/s (0.48 m^3/s) May 14, 15, Sept. 11, 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	38	124	49	34	63	112	119	32	295	215	226	51
2	40	119	52	34	62	110	110	29	311	231	288	44
3	35	110	54	36	60	100	112	29	304	267	315	40
4	37	105	54	35	60	88	108	25	295	313	334	35
5	35	98	59	35	57	80	107	20	288	320	359	32
6	34	95	60	36	50	88	112	21	290	261	322	29
7	32	95	62	38	54	88	124	21	299	231	261	26
8	31	98	62	38	56	90	105	22	318	210	219	21
9	32	96	63	40	56	96	93	21	341	197	188	20
10	32	65	63	42	61	100	83	20	336	170	170	18
11	32	74	57	42	62	100	79	20	322	143	167	17
12	35	80	54	42	64	100	74	20	313	124	181	17
13	36	86	52	50	68	105	74	18	288	124	177	18
14	36	95	50	48	71	110	71	17	267	134	170	21
15	38	98	45	47	70	115	68	17	243	131	161	21
16	41	105	45	49	67	120	66	20	253	122	145	23
17	50	110	43	51	65	130	66	22	311	110	131	23
18	51	100	42	47	63	135	68	29	421	96	127	23
19	54	80	40	45	60	140	68	34	500	120	125	24
20	59	60	40	44	58	140	59	36	528	167	113	22
21	61	54	39	50	59	140	46	83	560	253	102	24
22	58	52	37	52	61	150	41	168	320	329	91	26
23	59	50	38	51	64	160	38	273	222	311	86	26
24	58	48	38	49	69	170	37	334	186	263	88	24
25	71	48	38	47	71	161	34	373	174	210	78	22
26	81	48	37	47	78	168	29	348	163	186	66	21
27	88	48	37	52	88	170	31	304	163	217	61	22
28	95	48	36	55	98	140	34	265	219	277	62	24
29	110	48	37	57	108	122	34	230	210	284	55	26
30	115	48	38	59	---	131	34	228	213	243	47	26
31	120	---	36	58	---	138	---	261	---	215	48	---
TOTAL	1694	2385	1457	1410	1923	3797	2124	3340	8953	6474	4963	766
MEAN	54.6	79.5	47.0	45.5	66.3	122	70.8	108	298	209	160	25.5
MAX	120	124	63	59	108	170	124	373	560	329	359	51
MIN	31	48	36	34	50	80	29	17	163	96	47	17
AC-FT	3360	4730	2890	2800	3810	7530	4210	6620	17760	12840	9840	1520

CAL YR 1975 TOTAL 52934 MEAN 145 MAX 1160 MIN 15 AC-FT 105000
WTR YR 1976 TOTAL 39286 MEAN 107 MAX 560 MIN 17 AC-FT 77920

06662000 LARAMIE RIVER NEAR LOOKOUT, WY

LOCATION.--Lat 41°45'44", long 105°41'16", in NE¼NW¼SE¼ sec.27, T.21 N., R.74 W., Albany County, Hydrologic Unit 10180010, on right bank 155 ft (47 m) downstream from bridge on county road, 1.0 mi (1.6 km) upstream from Wheatland Reservoir No. 2, and 9.0 mi (14.5 km) northeast of Lookout.

DRAINAGE AREA.--2,174 mi^2 (5,631 km^2), of which 603 mi^2 (1,562 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1912 to December 1917, January 1921 to December 1927, April 1932 to current year (no winter records since 1972). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1310: 1913-17. WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,962.68 ft (2,122.225 m) above mean sea level. Prior to Apr. 22, 1915, nonrecording gage and Apr. 22, 1915, to Aug. 31, 1917, water-stage recorder, at bridge 155 ft (47 m) upstream at same datum. Oct. 14, 1931, to Sept. 17, 1938, at site 125 ft (38 m) upstream at same datum.

REMARKS.--Records fair. Natural flow of stream affected by transbasin diversions, storage reservoirs, diversions for irrigation of about 108,000 acres (437 km^2) above station, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--51 years (water years 1913-17, 1922-27, 1933-72), 131 ft^3/s (3.710 m^3/s), 94,910 acre-ft/yr (117 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,340 ft^3/s (94.6 m^3/s) June 17, 1957, gage height, 6.41 ft (1.954 m); maximum gage height, about 8.0 ft (2.4 m), occurred in 1973 (backwater from ice); no flow at times in 1934-35, 1939-40, 1954-55.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 559 ft^3/s (15.8 m^3/s) June 21, gage height, 2.88 ft (0.878 m); minimum daily during period of operation, 17 ft^3/s (0.48 m^3/s) May 14, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							105	48	307	262	238	83
2							110	45	334	267	259	80
3							115	42	348	288	304	77
4							120	34	348	323	315	68
5							122	32	340	356	329	63
6							122	30	342	351	326	59
7							128	26	354	318	288	59
8							136	26	362	299	241	63
9							124	26	380	283	212	60
10							111	25	392	264	192	54
11							103	19	380	231	177	49
12							99	19	368	192	172	44
13							97	18	365	197	177	32
14							97	17	348	175	170	26
15							93	18	334	166	163	22
16							89	19	312	161	154	26
17							93	19	345	152	139	26
18							89	18	402	139	128	26
19							87	17	501	132	126	26
20							82	36	497	143	124	26
21							75	48	536	241	113	26
22							68	101	469	312	107	25
23							59	212	310	331	101	28
24							58	288	246	304	103	30
25							59	337	218	262	101	30
26							53	354	210	223	90	30
27							48	342	200	218	88	26
28							51	315	215	249	85	25
29							51	283	262	283	85	28
30							51	257	251	267	84	30
31							---	270	---	244	84	---
TOTAL							2695	3341	10276	7633	5275	1247
MEAN							89.8	108	343	246	170	41.6
MAX							136	354	536	356	329	83
MIN							48	17	200	132	84	22
AC-FT							5350	6630	20380	15140	10460	2470

06662000 LARAMIE RIVER NEAR LOOKOUT, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	POLYCHLORINATED NAPHTHALENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDD (UG/L)
SEP 20...	0930	26	.0	0	.00	.00	.0	.0	0	.00

DATE	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)
SEP 20...	.0	.00	.0	.00	.0	.00	.00	.0	.00

DATE	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)
SEP 20...	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	TOTAL METHYL PARATHION (UG/L)	TOTAL METHYL TRITHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL TOXAPHENE (UG/L)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
SEP 20...	.00	.00	.00	0	0	.00	.00	.00	.00

06664400 SYBILLE CREEK ABOVE MULE CREEK, NEAR WHEATLAND, WY

LOCATION.--Lat 41°50'39", long 105°13'15", in NE¼SW¼SE¼ sec.27, T.22 N., R.70 W., Platte County, Hydrologic Unit 10180011, on right bank just upstream from bridge on U.S. Highway 34, 900 ft (274 m) upstream from Mule Creek, 2.9 mi (4.7 km) upstream from Bluegrass Creek, and 20 mi (32 km) southwest of Wheatland.

DRAINAGE AREA.--194 mi^2 (502 km^2).

PERIOD OF RECORD.--April 1974 to current year (no winter records).

GAGE.--Water-stage recorder. Altitude of gage is 5,340 ft (1,628 m), from topographic map.

REMARKS.--Records fair. Seven small reservoirs above station, combined capacity, about 400 acre-ft (0.493 hm^3), for irrigation. Diversions above station for irrigation of about 2,020 acres (8.17 km^2), of which about 80 acres (32.4 hm^2) lies below station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 75 ft^3/s (2.12 m^3/s) Apr. 27, 1974, gage height, 2.82 ft (0.860 m); minimum daily, 1.6 ft^3/s (0.045 m^3/s) Sept. 16, 1975, Sept. 5, 6, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 22 ft^3/s (0.62 m^3/s) May 23, gage height, 1.68 ft (0.512 m); minimum daily during period of operation, 1.6 ft^3/s (0.045 m^3/s) Sept. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							4.0	2.7	12	9.0	4.3	2.0
2							4.0	2.4	12	10	4.9	1.9
3							4.2	2.6	11	11	4.7	1.7
4							4.2	2.9	10	10	4.2	1.7
5							4.2	3.1	8.8	9.4	4.2	1.6
6							4.2	2.9	9.7	8.8	4.0	1.6
7							3.3	2.9	10	8.8	3.8	1.7
8							3.6	2.9	9.4	8.5	3.6	2.0
9							3.8	2.7	9.0	8.3	3.4	2.2
10							3.6	2.7	8.8	8.3	3.3	2.2
11							3.6	2.9	8.5	7.8	3.4	2.0
12							4.2	3.1	8.3	7.8	3.4	1.9
13							4.9	3.1	8.0	8.3	3.4	2.2
14							5.6	2.9	7.8	7.8	3.4	2.2
15							5.3	2.9	7.3	7.8	3.3	2.3
16							4.9	3.1	11	7.8	2.7	2.3
17							5.1	2.9	16	7.6	2.7	2.2
18							5.1	2.7	15	7.6	2.6	2.0
19							5.1	4.3	15	7.8	2.6	2.2
20							5.1	7.8	13	7.8	2.6	2.3
21							4.5	8.5	7.8	9.4	2.3	2.3
22							3.8	10	5.8	7.6	2.2	2.3
23							3.4	18	6.2	6.8	2.4	2.3
24							3.8	14	6.4	6.4	2.4	2.4
25							4.0	11	6.2	6.0	2.3	2.4
26							3.4	11	6.2	5.6	2.2	2.4
27							3.3	11	6.2	5.3	2.2	2.6
28							2.6	12	6.4	4.9	1.9	2.6
29							2.9	12	7.6	4.7	1.9	2.4
30							3.1	13	7.8	4.5	1.9	2.4
31							---	13	---	4.3	2.0	---
TOTAL							122.8	197.0	277.2	235.7	94.2	64.3
MEAN							4.09	6.35	9.24	7.60	3.04	2.14
MAX							5.6	18	16	11	4.9	2.6
MIN							2.6	2.4	5.8	4.3	1.9	1.6
AC-FT							244	391	550	468	187	128

06664900 BLUEGRASS CREEK NEAR WHEATLAND, WY

LOCATION.--Lat 41°52'14", long 105°12'51", in NE¼NE¼NE¼ sec.22, T.22 N., R.70 W., Platte County, Hydrologic Unit 10180011, on right bank 150 ft (46 m) upstream from State Highway 34, 0.2 mi (0.3 km) upstream from Sybille Creek, and 18.2 mi (29.3 km) southwest of Wheatland.

DRAINAGE AREA.--139 mi^2 (360 km^2).

PERIOD OF RECORD.--August 1958 to September 1963, October 1968 to current year (no winter records since 1972).

GAGE.--Water-stage recorder. Altitude of gage is 5,250 ft (1,600 m), from topographic map.

REMARKS.--Records fair. Most of flow during irrigation season is water released from Wheatland Reservoir No 2, capacity, 98,930 acre-ft (122 hm^3), and Wheatland Reservoir No. 3, capacity, 90,870 acre-ft (112 hm^3), on the Laramie River and diverted through a tunnel 15 mi (24 km) upstream. Diversions for irrigation of about 210 acres (85 km^2) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,590 ft^3/s (73.3 m^3/s) May 9, 1973, gage height, 5.92 ft (1.804 m), from rating curve extended above 700 ft^3/s (19.8 m^3/s); minimum daily, 0.35 ft^3/s (0.010 m^3/s) Jan. 8, 1970.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1968, reached a discharge of about 3,400 ft^3/s (96.3 m^3/s), from comparison of flow at stations on Sybille Creek above and below Bluegrass Creek.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 2,500 ft^3/s (70.8 m^3/s) July 31, gage height, about 5.8 ft (1.77 m), from floodmarks; minimum daily during period of operation, 10 ft^3/s (0.28 m^3/s) June 3, 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							16	24	14	382	305	316
2							20	23	12	387	256	310
3							18	24	10	387	232	302
4							21	24	10	382	250	299
5							24	24	12	378	313	250
6							34	22	15	382	324	238
7							35	22	137	382	324	232
8							26	21	247	378	324	229
9							27	21	285	378	320	226
10							30	21	332	378	340	202
11							34	21	340	396	360	181
12							43	22	387	464	369	181
13							48	21	387	452	369	181
14							44	19	408	440	378	181
15							38	20	404	436	378	172
16							41	17	400	432	378	169
17							41	136	392	432	378	163
18							29	306	400	436	378	160
19							30	320	400	432	378	155
20							30	320	392	440	378	155
21							31	374	382	464	382	152
22							34	387	382	436	382	152
23							34	364	382	428	382	155
24							32	256	313	428	408	152
25							29	247	299	428	396	152
26							30	241	296	436	387	152
27							35	238	296	374	374	152
28							29	125	296	235	374	152
29							29	31	324	220	320	129
30							27	20	378	220	306	44
31							---	17	---	271	310	---
TOTAL							939	3728	8332	12114	10753	5694
MEAN							31.3	120	278	391	347	190
MAX							48	387	408	464	408	316
MIN							16	17	10	220	232	44
AC-FT							1860	7390	16530	24030	21330	11290

06667060 LARAMIE RIVER ABOVE NORTH LARAMIE RIVER, NEAR UVA, WY

LOCATION.--Lat 42°07'12", long 104°56'09", in SW¼SW¼SE¼ sec.19, T.25 N., R.67 W., Platte County, Hydrologic Unit 10180011, on right bank 75 ft (23 m) downstream from bridge on U.S. Highway 87, 0.8 mi (1.3 km) upstream from North Laramie River, 1.1 mi (1.8 km) southwest of Uva, and 4.6 mi (7.4 km) north of Wheatland.

DRAINAGE AREA.--3,131 mi² (8,109 km²), of which 611 mi² (1,582 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1973 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,500 ft (1,372 m), from topographic map.

REMARKS.--Records poor. Natural flow of stream affected by transbasin diversions, storage reservoirs, groundwater withdrawals, diversions for irrigation of about 157,000 acres (635 km²) above station, and return flow from irrigated areas.

EXTREMES FOR PERIOD OR RECORD.--Maximum discharge, 1,250 ft³/s (35.4 m³/s) Aug. 1, 1976, gage height, 7.42 ft (2.262 m); minimum daily, 1.6 ft³/s (0.045 m³/s) July 3, 1975.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,250 ft³/s (35.4 m³/s) Aug. 1, gage height, 7.42 ft (2.262 m); minimum daily, 2.7 ft³/s (0.076 m³/s) Aug. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	29	39	43	41	43	40	27	32	57	24	466	10
2	31	38	48	40	43	40	27	32	50	30	840	8.0
3	36	37	52	39	43	39	27	28	49	35	221	9.5
4	35	37	55	39	26	38	26	22	41	36	96	11
5	26	31	54	40	22	37	26	24	31	34	75	12
6	26	31	53	40	22	42	30	22	29	31	62	13
7	16	29	53	41	35	45	31	20	13	22	52	14
8	17	29	53	43	56	46	30	22	5.9	22	46	15
9	18	31	54	45	70	43	30	21	6.3	18	41	15
10	20	32	54	48	60	42	28	18	5.9	12	36	16
11	24	31	49	51	46	42	27	21	6.7	9.2	33	17
12	32	31	47	53	46	32	27	26	13	5.2	31	18
13	34	30	43	55	43	38	29	24	20	7.1	17	19
14	31	32	39	57	40	46	32	28	29	5.2	18	21
15	37	35	36	58	39	54	35	29	33	3.4	28	22
16	35	35	35	60	38	48	43	28	33	3.4	28	26
17	34	39	33	61	37	46	48	28	35	3.2	27	25
18	34	39	34	62	34	46	42	26	35	3.0	26	28
19	28	40	35	62	33	43	38	22	31	3.0	25	27
20	26	29	36	63	32	41	36	20	34	3.0	22	21
21	25	29	37	61	30	37	30	13	30	3.0	16	20
22	26	31	38	57	32	39	25	20	26	3.0	14	20
23	27	32	38	51	34	39	24	53	31	3.0	13	20
24	32	34	39	47	38	38	24	94	34	3.2	14	22
25	34	34	40	41	41	35	22	112	31	3.2	13	23
26	44	35	41	40	43	34	24	101	31	50	13	25
27	46	36	[illegible]	42	42	33	34	75	26	100	2.7	27
28	39	36	[illegible]	44	41	32	35	61	20	40	3.8	27
29	37	35	[illegible]	47	41	32	37	58	24	30	8.8	27
30	38	36	43	48	---	29	38	61	17	26	10	32
31	40	---	42	43	---	28	---	63	---	23	15	---
TOTAL	957	1013	1349	1519	1150	1224	932	1204	827.8	594.1	2313.3	590.5
MEAN	30.9	33.8	43.5	49.0	39.7	39.5	31.1	38.8	27.6	19.2	74.6	19.7
MAX	46	40	55	63	70	54	48	112	57	100	840	32
MIN	16	29	33	39	22	28	22	13	5.9	3.0	2.7	8.0
AC-FT	1900	2010	2680	3010	2280	2430	1850	2390	1640	1180	4590	1170

CAL YR 1975 TOTAL 11062.0 MEAN 30.3 MAX 70 MIN 1.6 AC-FT 21940
WTR YR 1976 TOTAL 13673.7 MEAN 37.4 MAX 840 MIN 2.7 AC-FT 27120

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY

LOCATION.--Lat 42°11'57", long 104°35'28", in SE¼SE¼NE¼ sec.25, T.26 N., R.65 W., Goshen County, Hydrologic Unit 10180011, on right bank 5 ft (1.5 m) downstream from Fort Laramie Canal Siphon, 10 ft (3 m) east of county road, 1.1 mi (1.8 km) downstream from Gering-Fort Laramie Canal diversion, 1.7 mi (2.7 km) southwest of Old Fort Laramie, 3.0 mi (4.8 km) upstream from Deer Creek, 4.0 mi (6.4 km) southwest of Fort Laramie, and 5.1 mi (8.2 km) upstream from mouth.

DRAINAGE AREA.--4,495 mi² (11,642 km²), of which 631 mi² (1,634 km²) is probably noncontributing. Drainage area at mouth, 4,565 mi² (11,823 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1915 to current year (no winter records prior to 1927). Monthly discharge only for some periods, published in WSP 1310. Records for water years 1926-39, previously published including diversions to Gering-Fort Laramie Canal, were adjusted to exclude flow in the canal in WSP 1310. Prior to October 1931, published as "at Fort Laramie."

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,257.04 ft (1,297.546 m) above mean sea level (Bureau of Reclamation bench mark). Apr. 4, 1915, to Mar. 31, 1925, nonrecording gage at site 4.4 mi (7.1 km) downstream at different datum. Apr. 1, 1925, to Sept. 30, 1932, nonrecording gage and Oct. 1, 1932, to Aug. 20, 1935, water-stage recorder, at present site at different datum. Aug. 21, 1935, to Nov. 2, 1970, water-stage recorder 4.0 mi (6.4 km) downstream at different datum. Nov. 3, 1970, to May 9, 1973, water-stage recorder 4.4 mi (7.1 km) downstream at different datum.

REMARKS.--Records fair except those for winter period, which are poor. Diversion, at times, to Gering-Fort Laramie Canal, 1.1 mi (1.8 km) upstream. Natural flow of stream affected by transbasin diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation of about 176,000 acres (710 km²) above station, and return flow from irrigated areas.

AVERAGE DISCHARGE.--20 years (water years 1957-76), 141 ft³/s (3.993 m³/s), 102,300 acre-ft/yr (126 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,260 ft³/s (177 m³/s) May 10, 1973, gage height, 9.40 ft (2.865 m); no flow Jan. 31 to Mar. 20, Oct. 24 to Dec. 17, 1926, Mar. 1-26, 1927, Apr. 14, 1938 (all flow diverted by Gering-Fort Laramie Canal).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 610 ft³/s (17.3 m³/s), Aug. 3, gage height, 6.17 ft (1.881 m); minimum daily, 7.3 ft³/s (0.21 m³/s) July 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	84	74	78	113	129	96	165	244	19	200	21
2	32	86	86	74	120	128	90	158	213	18	383	21
3	32	86	96	70	123	124	84	155	185	16	524	8.6
4	37	85	105	68	123	120	78	146	162	14	252	9.9
5	44	85	112	65	118	110	71	140	140	14	157	12
6	46	84	116	64	114	115	75	152	115	15	116	13
7	47	80	116	66	115	121	78	164	110	13	92	14
8	48	80	118	67	122	133	79	182	86	12	78	14
9	45	80	118	69	132	138	75	192	79	11	66	15
10	45	82	118	72	147	133	73	178	68	10	56	15
11	45	84	116	76	150	126	71	180	65	9.9	52	18
12	48	88	113	79	143	110	69	192	51	8.9	50	19
13	47	88	112	81	140	112	71	183	46	10	45	20
14	48	91	100	83	138	115	82	169	46	12	31	24
15	50	94	92	85	134	124	92	155	47	13	28	28
16	48	97	86	87	131	126	88	146	44	14	31	32
17	55	97	81	88	131	126	108	173	37	10	39	34
18	55	97	82	89	126	124	123	180	41	8.6	42	33
19	55	100	83	90	121	123	110	160	45	8.0	37	33
20	62	80	84	90	123	118	105	124	38	7.5	24	31
21	56	78	85	89	110	115	105	112	36	7.4	30	31
22	55	79	86	87	112	112	110	112	37	7.3	25	32
23	62	80	87	84	113	112	112	165	40	7.4	23	34
24	72	80	88	80	112	110	112	239	38	7.5	23	36
25	78	80	89	77	128	108	118	388	38	7.5	18	38
26	79	80	90	79	129	107	126	379	38	17	13	41
27	85	79	90	83	131	105	134	345	37	14	13	42
28	85	75	90	88	129	105	158	291	37	215	14	46
29	84	68	89	94	131	104	160	257	29	182	12	45
30	84	66	87	100	---	100	162	239	19	164	10	48
31	85	---	84	105	---	97	---	242	---	162	15	---
TOTAL	1745	2513	2973	2507	3659	3630	3015	6063	2211	1035.0	2499	808.5
MEAN	56.3	83.8	95.9	80.9	126	117	101	196	73.7	33.4	80.6	27.0
MAX	85	100	118	105	150	138	162	388	244	215	524	48
MIN	31	66	74	64	110	97	69	112	19	7.3	10	8.6
AC-FT	3460	4980	5900	4970	7260	7200	5980	12030	4390	2050	4960	1600

CAL YR 1975 TOTAL 26741.7 MEAN 73.3 MAX 258 MIN 7.0 AC-FT 53040
WTR YR 1976 TOTAL 32658.5 MEAN 89.2 MAX 524 MIN 7.3 AC-FT 64780

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1976 (discontinued).
WATER TEMPERATURES: October 1965 to September 1976 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,220 micromhos Jan. 12, 1973; minimum daily, 309 micromhos May 21, 1970.
WATER TEMPERATURES: Maximum, 27.5°C July 5, 1975; minimum, 0.0°C on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 973 micromhos Oct. 30; minimum daily, 393 micromhos Aug. 3.
WATER TEMPERATURES: Maximum, 25.0°C July 5, 28; minimum, 0.0°C Feb. 5.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV									
04...	0830	85	950	8.5	15	9.4	33	350	120
DEC									
02...	1015	A86	900	3.5	15	11.4	71	370	99
JAN									
06...	0830	A64	960	1.0	1	10.6	44	380	100
FEB									
03...	0845	A123	860	1.0	7	11.2	B17	310	80
MAR									
04...	0900	120	850	.5	3	11.2	88	310	80
APR									
06...	0830	73	840	10.0	4	9.3	49	310	90
MAY									
04...	0845	162	620	13.0	20	9.0	64	230	50
JUN									
09...	0830	78	710	18.0	5	7.8	72	280	59
JUL									
07...	1945	13	780	22.0	1	7.6	80	300	79
AUG									
03...	0930	A524	470	17.0	3000	6.8	8900	190	51
11...	1345	53	--	22.5	--	--	--	320	33
31...	1030	18	840	16.0	1	9.8	49	310	80
SEP									
28...	0900	46	900	9.0	1	9.1	39	320	80

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
NOV									
04...	95	28	64	1.5	5.6	280	0	230	220
DEC									
02...	98	30	67	1.5	5.1	330	0	271	220
JAN									
06...	110	30	60	1.3	4.7	340	0	279	220
FEB									
03...	83	26	54	1.3	4.7	280	0	230	180
MAR									
04...	84	25	58	1.4	4.9	280	0	230	180
APR									
06...	84	25	58	1.4	5.1	250	9	220	200
MAY									
04...	64	17	38	1.1	4.0	220	0	180	120
JUN									
09...	76	22	47	1.2	4.9	270	0	221	150
JUL									
07...	81	23	55	1.4	5.6	270	0	221	180
AUG									
03...	53	13	22	.7	7.9	170	0	139	84
11...	89	24	53	1.3	5.4	350	0	287	140
31...	86	22	55	1.4	5.4	280	0	230	190
SEP									
28...	84	26	59	1.4	4.9	280	6	240	180

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
NOV 04...	23	.8	29	609	.83	140	.47	.03
DEC 02...	23	.8	31	642	.87	149	.72	.04
JAN 06...	22	.7	32	646	.88	112	.93	.01
FEB 03...	19	.7	28	536	.73	178	.70	.02
MAR 04...	19	.7	28	540	.73	175	.59	.01
APR 06...	19	.7	25	552	.75	109	.36	.01
MAY 04...	13	.6	21	385	.52	168	.00	.07
JUN 09...	16	.6	27	473	.64	99.6	.14	.05
JUL 07...	17	.8	25	518	.70	18.2	.14	.00
AUG 03...	10	.1	14	292	.40	413	.84	.40
11...	17	.8	30	532	.72	76.1	.54	.08
31...	16	.6	27	536	.73	26.1	.20	.01
SEP 28...	19	.7	28	550	.75	68.3	.34	.03

DATE	TIME	TOTAL PCB (UG/L)	PCB IN BOTTOM MA-TERIAL (UG/KG)	POLY-CHLO-RINATED NAPH-THA-LENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL CHLOR-DANE (UG/L)	CHLOR-DANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDD (UG/L)	DDD IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MA-TERIAL (UG/KG)
AUG 31...	1030	.0	0	.00	.00	.0	.0	0	.00	.0	.00	.0

DATE	TOTAL DDT (UG/L)	DDT IN BOTTOM MA-TERIAL (UG/KG)	TOTAL DI-AZINON (UG/L)	TOTAL DI-ELDRIN (UG/L)	DI-ELDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ENDRIN (UG/L)	ENDRIN IN BOTTOM MA-TERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTA-CHLOR (UG/L)	HEPTA-CHLOR IN BOTTOM MA-TERIAL (UG/KG)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)	HEPTA-CHLOR EPOXIDE IN BOT-TOM MA-TERIAL (UG/KG)
AUG 31...	.00	.0	.00	.00	.0	.00	.0	.00	.00	.0	.00	.0

DATE	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL MALA-THION (UG/L)	TOTAL METHYL PARA-THION (UG/L)	TOTAL METHYL TRI-THION (UG/L)	TOTAL PARA-THION (UG/L)	TOTAL TOX-APHENE (UG/L)	TOX-APHENE IN BOTTOM MA-TERIAL (UG/KG)	TOTAL TRI-THION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
AUG 31...	.00	.0	.00	.00	.00	.00	0	0	.00	.00	.00	.00

DATE	TIME	TEMPER-ATURE (DEG C)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT 08...	1510	11.5	48	64	8.3
NOV 04...	1250	10.0	86	94	22
DEC 01...	1500	.0	74	136	27
JAN 13...	1000	.0	80	85	18
FEB 11...	1100	1.0	150	122	49
MAR 16...	1000	4.5	123	39	13
APR 06...	0830	10.0	73	22	4.3
JUN 09...	0830	18.0	78	86	18
JUL 14...	0850	17.5	13	39	1.4
AUG 11...	1345	22.5	53	151	22
SEP 09...	0930	20.5	16	106	4.6

06670500 LARAMIE RIVER NEAR FORT LARAMIE, WY--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976 ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	798	887	880	910	792	753	804	492	517	800	688	772
2	842	910	956	869	792	753	788	531	569	810	704	769
3	842	910	913	890	791	765	807	527	609	782	393	767
4	853	910	913	856	802	759	811	526	624	791	468	771
5	867	918	910	913	832	787	811	498	654	790	590	769
6	889	903	907	934	887	799	800	469	670	781	642	790
7	856	903	907	924	887	815	809	420	632	789	727	769
8	885	905	864	912	875	811	783	418	676	773	727	803
9	889	927	885	910	791	795	803	419	690	778	760	798
10	874	900	885	890	772	777	821	434	675	786	765	790
11	898	932	895	869	761	779	811	434	710	787	740	795
12	908	922	895	860	814	803	766	416	725	752	780	795
13	921	946	876	849	811	802	770	429	767	770	760	769
14	875	931	876	854	813	802	759	453	753	770	780	821
15	920	926	886	830	799	797	740	453	733	770	770	756
16	923	929	883	837	779	798	692	479	767	765	765	795
17	931	873	910	815	784	781	689	471	779	762	787	806
18	920	920	890	804	782	799	768	479	756	770	770	821
19	931	935	896	799	797	825	766	511	756	761	775	816
20	874	913	912	799	787	814	714	563	759	770	764	787
21	908	945	906	819	814	829	716	589	734	775	767	811
22	919	942	853	826	803	797	664	594	769	785	777	803
23	910	964	873	837	733	793	632	598	742	783	760	803
24	890	892	841	837	777	814	620	520	759	805	757	815
25	900	907	858	848	813	811	608	528	767	793	748	800
26	890	929	826	871	784	811	573	548	790	773	757	786
27	896	916	819	871	773	816	568	535	764	732	776	768
28	921	925	831	852	784	821	546	539	783	655	765	770
29	971	949	849	831	784	807	569	540	784	681	869	775
30	973	971	855	810	---	818	568	559	793	713	767	779
31	954	---	876	802	---	807	---	540	---	744	787	---
MONTH	898	921	881	856	800	798	719	500	717	768	732	789
YEAR	MAX	973	MIN	393	MEAN	781						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976 ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.5	10.5	2.5	0.5	3.5	4.0	12.5	15.0	20.0	23.5	19.0	21.0
2	16.5	11.0	4.5	0.5	4.0	5.0	12.5	16.5	22.0	19.5	18.5	21.0
3	17.0	11.0	5.0	0.5	3.0	3.5	13.0	18.0	21.5	22.5	21.0	20.0
4	16.0	11.0	5.5	0.5	0.5	2.0	15.5	15.5	22.5	23.0	21.0	21.5
5	17.0	10.5	5.0	1.0	0.0	3.0	15.0	15.5	21.5	25.0	23.0	21.5
6	16.5	9.5	5.0	0.5	0.5	4.5	11.0	15.0	22.5	23.0	23.5	22.0
7	17.0	9.0	5.0	0.5	1.5	6.0	12.0	16.5	23.0	23.0	24.0	19.0
8	13.0	8.5	6.5	1.0	1.5	8.0	9.0	16.5	22.5	24.0	24.0	14.0
9	13.5	6.5	6.5	1.5	3.5	8.0	15.5	18.0	21.0	24.0	22.5	18.5
10	14.5	6.5	6.5	1.0	3.0	10.0	14.5	19.0	23.0	24.0	23.0	19.0
11	15.0	4.0	5.0	1.0	4.0	6.0	15.5	16.0	21.0	23.5	20.5	20.0
12	15.0	3.5	5.0	1.0	4.5	3.0	17.5	14.5	20.0	22.5	22.0	19.5
13	13.5	5.5	3.5	1.0	7.0	5.5	15.5	17.5	19.0	23.5	21.5	20.0
14	10.0	7.0	1.5	1.0	7.0	3.5	15.5	20.5	12.5	24.0	22.5	18.5
15	11.5	8.0	3.5	1.5	7.0	4.5	15.5	13.0	19.5	23.5	23.0	19.0
16	12.0	9.0	1.0	1.0	7.0	8.5	10.0	17.0	15.5	23.0	23.0	20.0
17	12.0	6.0	0.5	2.0	5.0	9.0	9.5	18.5	15.5	24.0	22.0	20.0
18	12.5	5.5	1.5	2.0	4.5	11.0	13.0	20.0	17.0	21.5	24.0	19.5
19	13.5	3.0	2.0	1.5	4.5	10.5	16.0	20.0	21.0	23.5	23.0	14.5
20	13.0	2.5	1.0	1.5	4.0	7.5	16.5	19.5	22.0	18.0	23.0	19.0
21	13.0	2.0	1.5	1.5	4.0	7.0	16.0	19.0	24.0	22.0	23.5	17.5
22	11.5	2.5	2.0	2.5	4.5	9.5	15.5	14.0	19.5	23.0	24.0	18.0
23	9.5	2.5	0.5	2.5	4.0	12.5	15.0	12.5	19.5	24.0	19.0	16.5
24	7.0	2.0	1.0	1.5	5.0	11.0	16.5	15.0	22.0	24.5	23.5	15.5
25	7.0	1.0	1.5	1.0	7.0	11.0	15.5	16.0	21.0	24.5	23.0	17.5
26	10.0	1.0	1.5	1.0	8.0	10.0	8.5	19.0	22.5	24.0	22.0	14.0
27	8.5	1.5	2.0	1.5	8.5	10.5	7.5	21.0	20.5	24.5	19.0	16.0
28	9.5	1.0	1.0	3.0	8.0	11.0	9.0	21.0	22.0	25.0	22.0	16.0
29	10.0	0.5	1.0	4.0	7.0	8.5	10.5	21.0	23.5	24.0	21.5	17.0
30	9.5	1.0	2.0	2.5	---	8.0	11.5	20.0	23.5	22.0	21.0	18.0
31	10.5	---	0.5	3.0	---	12.0	---	21.0	---	22.0	18.5	---
MONTH	12.5	5.5	3.0	1.5	4.5	7.5	13.5	17.5	20.5	23.0	22.0	18.5
YEAR	MAX	25.0	MIN	0.0	MEAN	12.5						

06671000 RAWHIDE CREEK NEAR LINGLE, WY

LOCATION.--Lat 42°07'32", long 104°19'36", in SE¼NE¼ sec.20, T.25 N., R.62 W., Goshen County, Hydrologic Unit 10180009, on right bank 200 ft (61 m) upstream from bridge on U.S. Highway 26, 1.0 mi (1.6 km) east of Lingle, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--522 mi^2 (1,352 km^2).

PERIOD OF RECORD.--May 1928 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WSP 1440: 1932, 1936(M). WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,160 ft (1,268 m), from topographic map. See WSP 1918 for history of changes prior to May 16, 1955.

REMARKS.--Records good. Low flow represents return water from lands irrigated by Interstate Canal in Rawhide Creek basin. Six small reservoirs above station, combined capacity, about 460 acre-ft (0.567 hm^3), for irrigation. Diversions for irrigation of about 1,600 acres (6.48 km^2) above station.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--43 years (water years 1929-71), 21.5 ft^3/s (0.609 m^3/s), 15,580 acre-ft/yr (19.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,970 ft^3/s (112 m^3/s) Sept. 7, 1946, gage height, 11.76 ft (3.584 m); no flow July 5-7, 1961, Apr. 12, 29, 1966, Mar. 20-28, 1967, Apr. 13, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 100 ft^3/s (2.83 m^3/s) May 23, gage height, 4.13 ft (1.259 m); minimum daily during period of operation, 3.3 ft^3/s (0.09 m^3/s) July 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							13	8.2	13	13	29	18
2							13	8.2	14	15	31	18
3							13	13	15	17	33	18
4							13	20	13	15	27	18
5							13	18	11	15	21	19
6							15	15	11	12	20	20
7							15	15	11	11	21	22
8							14	25	9.6	6.1	22	23
9							14	31	11	3.8	22	27
10							13	30	10	3.8	24	32
11							13	29	5.8	3.5	25	31
12							13	30	8.9	3.8	28	32
13							13	29	12	4.4	25	30
14							12	20	13	4.4	15	31
15							7.8	17	11	4.7	13	33
16							7.5	24	11	4.1	16	32
17							8.9	26	13	3.3	17	32
18							8.6	23	17	5.0	16	33
19							6.4	20	19	5.5	17	32
20							5.2	21	29	8.9	16	35
21							5.5	15	29	16	15	34
22							5.5	8.6	32	17	15	34
23							6.1	42	33	15	16	33
24							6.8	53	30	13	15	39
25							6.8	39	26	19	16	41
26							7.5	29	17	24	16	38
27							8.9	15	17	24	16	36
28							9.3	10	16	24	17	39
29							8.9	13	16	23	17	41
30							8.6	20	15	19	18	39
31							---	15	---	19	17	---
TOTAL							305.3	682.0	489.3	372.3	616	910
MEAN							10.2	22.0	16.3	12.0	19.9	30.3
MAX							15	53	33	24	33	41
MIN							5.2	8.2	5.8	3.3	13	18
AC-FT							606	1350	971	738	1220	1800

06672000 NORTH PLATTE RIVER AT TORRINGTON, WY

LOCATION.--Lat 42°03'13", long 104°12'29", in SE¼SE¼NE¼ sec.17, T.24 N., R.61 W., Goshen County, Hydrologic Unit 10180009, 1.5 mi (2.4 km) upstream from former discharge station, 1.5 mi (2.4 km) upstream from bridge on U.S. Highway 85, and 1.5 mi (2.4 km) southwest of Torrington.

PERIOD OF RECORD.--November 1975 to September 1976.

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1975 to September 1976.

INSTRUMENTATION.--Temperature recorder.

REMARKS.--Records furnished by Wyoming Game and Fish Commission. Recorder clock stopped May 25-31 (range in temperature 11.0°C to 22.0°C), July 8 to Aug. 19 (range in temperature 14.0°C to 25.0°C).

EXTREMES FOR PERIOD NOVEMBER TO SEPTEMBER.--
WATER TEMPERATURES: Maximum, 26.0°C June 8; minimum, 0.0°C Jan. 1-3.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1			---	---	6.5	1.5	10.0	0.0	9.0	6.5	10.5	4.0
2			---	---	9.0	5.5	0.5	0.0	9.0	6.5	8.0	3.5
3			---	---	8.0	5.5	3.0	0.0	8.5	5.5	6.0	1.0
4			---	---	9.5	5.5	6.5	3.0	8.5	4.5	3.5	1.0
5			---	---	7.0	5.0	10.0	6.5	8.5	5.0	6.5	0.5
6			---	---	6.5	4.0	10.0	9.0	7.0	5.0	9.0	1.5
7			11.0	7.0	6.5	5.0	10.0	8.5	9.0	5.0	10.0	3.5
8			10.5	8.5	9.0	6.0	10.0	8.5	10.0	6.5	11.5	4.5
9			9.5	6.0	9.5	6.5	9.5	8.5	11.0	8.5	12.0	5.5
10			9.0	4.5	9.0	6.5	10.0	9.5	10.5	8.0	13.0	6.0
11			6.5	3.5	7.0	5.0	10.0	9.5	9.5	6.0	9.5	1.5
12			6.5	2.0	5.5	4.0	10.0	9.0	9.0	5.5	8.0	1.5
13			9.0	4.5	4.5	2.0	9.5	9.0	10.0	5.5	9.0	3.0
14			10.0	5.0	3.5	0.5	9.5	9.0	9.5	5.5	7.0	4.0
15			10.5	6.5	3.0	0.5	9.5	9.0	9.0	4.5	10.0	4.0
16			11.0	6.5	3.0	1.5	10.0	9.5	8.5	5.0	11.5	4.5
17			8.5	5.5	3.0	0.5	10.5	9.0	7.0	5.0	11.5	6.5
18			8.0	4.5	4.5	0.5	9.5	8.5	6.0	3.5	14.0	8.0
19			5.5	1.5	5.5	2.0	8.5	6.5	6.0	2.0	11.0	7.0
20			4.0	0.5	5.5	3.0	7.0	5.0	5.0	3.5	9.0	5.0
21			4.5	0.5	5.0	1.5	8.0	5.5	6.5	1.5	9.5	5.5
22			5.5	1.0	10.0	3.0	8.5	5.5	8.0	2.0	13.0	6.0
23			7.0	4.0	9.5	9.0	7.0	5.5	6.0	3.5	13.5	8.5
24			4.5	3.0	9.5	9.0	5.5	1.5	8.5	4.0	13.0	8.5
25			4.0	2.0	10.0	9.5	5.0	1.5	9.0	4.5	13.0	9.0
26			4.0	1.0	9.5	9.0	4.5	1.0	10.5	5.5	12.0	8.0
27			6.0	2.0	9.5	9.5	6.0	2.0	9.5	6.0	13.0	8.0
28			4.0	1.5	9.5	9.0	8.5	4.5	9.0	5.5	11.0	9.0
29			3.0	0.5	9.0	9.0	9.0	4.5	7.0	4.5	11.5	8.5
30			3.0	0.5	9.5	8.5	10.0	8.0	---	---	11.0	8.0
31			---	---	9.0	7.0	9.0	7.0	---	---	13.5	8.0
MONTH			11.0	0.5	10.0	0.5	10.5	0.0	11.0	1.5	14.0	0.5

	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	14.5	9.0	15.0	9.0	23.0	17.0	14.0	14.0	---	---	12.0	12.0
2	13.5	9.5	16.5	10.0	23.0	16.5	14.5	14.0	---	---	12.0	12.0
3	13.5	8.5	18.0	10.5	23.5	17.0	15.5	14.0	---	---	12.0	12.0
4	14.5	9.0	16.5	13.0	24.0	17.0	16.5	15.5	---	---	13.0	12.0
5	15.0	10.0	15.5	11.5	24.0	16.5	20.5	16.0	---	---	13.0	12.0
6	11.5	10.0	15.5	10.5	23.5	16.5	19.0	17.0	---	---	13.0	12.0
7	14.0	9.5	16.5	11.0	24.5	16.5	13.0	16.5	---	---	13.0	12.0
8	11.0	10.0	18.0	11.5	26.0	18.0	---	---	---	---	12.0	12.0
9	14.0	9.5	19.0	12.0	22.0	18.5	---	---	---	---	13.0	12.0
10	13.0	10.0	20.5	14.0	25.5	16.0	---	---	---	---	13.0	12.0
11	13.0	10.5	17.0	13.0	25.0	18.0	---	---	---	---	13.0	12.0
12	14.5	10.5	14.0	10.5	20.0	15.5	---	---	---	---	13.0	12.0
13	14.0	11.0	18.0	9.5	20.5	16.0	---	---	---	---	13.0	12.0
14	14.0	10.0	21.0	13.5	17.0	12.0	---	---	---	---	13.0	12.0
15	13.5	11.0	15.5	10.0	18.0	11.5	---	---	---	---	13.5	12.0
16	11.5	9.0	16.5	10.0	15.5	11.5	---	---	---	---	13.5	12.0
17	9.0	8.5	19.0	12.0	11.5	11.0	---	---	---	---	14.0	13.0
18	14.0	8.0	20.0	13.5	11.5	11.0	---	---	---	---	14.0	13.0
19	15.5	10.5	19.0	14.5	11.5	11.0	---	---	15.5	---	14.0	14.0
20	16.0	9.5	20.5	15.5	14.5	11.5	---	---	18.0	13.0	16.5	14.0
21	15.0	11.0	18.0	15.0	13.0	12.0	---	---	18.0	13.0	16.0	13.5
22	14.5	10.0	15.5	12.0	12.0	11.5	---	---	16.0	13.5	14.5	13.5
23	15.5	11.0	12.0	11.5	11.5	11.0	---	---	18.5	13.0	15.0	13.5
24	15.5	9.5	13.5	11.0	11.5	11.0	---	---	19.5	14.0	14.0	13.5
25	15.0	10.0	---	---	11.5	11.0	---	---	24.0	16.5	14.0	13.0
26	10.0	6.5	---	---	11.5	11.0	---	---	23.5	19.5	13.5	13.0
27	6.5	6.0	---	---	12.0	11.5	---	---	21.0	18.0	13.5	12.0
28	9.0	6.0	---	---	12.0	11.5	---	---	21.5	17.0	13.5	12.0
29	10.5	8.0	---	---	12.0	12.0	---	---	22.0	18.0	13.5	12.0
30	12.0	7.0	---	---	14.0	12.0	---	---	19.5	13.0	13.5	12.0
31	---	---	22.0	---	---	---	---	---	13.0	12.0	---	---
MONTH	16.0	6.0	22.0	---	26.0	11.0	---	---	---	---	16.5	12.0

06672500 CHERRY CREEK DRAIN NEAR TORRINGTON, WY

LOCATION.--Lat 42°02'22", long 104°10'07", in SW¼NW¼ sec.23, T.24 N., R.61 W., Goshen County, Hydrologic Unit 10180009, on left bank 50 ft (15 m) downstream from bridge on county road, 0.6 mi (1.0 km) upstream from mouth, and 2.0 mi (3.2 km) southeast of Torrington.

DRAINAGE AREA.--356 mi² (922 km²).

PERIOD OF RECORD.--May to September 1931, May to September 1932, May 1935 to current year (no winter records since 1971). Monthly discharge only for some periods, published in WSP 1310.

GAGE.--Water-stage recorder. Altitude of gage is 4,080 ft (1,244 m), from topographic map. Prior to June 12, 1935, nonrecording gage at site 1.0 mi (1.6 km) upstream at different datum. June 12, 1935, to Sept. 30, 1945, water-stage recorder at site 100 ft (30 m) downstream at datum 2.00 ft (0.610 m) higher. Oct. 1, 1945, to Nov. 27, 1950, water-stage recorder at site 100 ft (30 m) downstream at present datum.

REMARKS.--Records good. Flow is mainly return water from irrigation.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--36 years (water years 1936-71), 21.6 ft³/s (0.612 m³/s), 15,650 acre-ft/yr (19.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft³/s (68.5 m³/s) June 27, 1955, gage height, 10.31 ft (3.142 m) from floodmark; minimum daily, 0.40 ft³/s (0.011 m³/s) Jan. 28, 29, 1949.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 279 ft³/s (7.90 m³/s) June 8, gage height, 3.82 ft (1.164 m); minimum daily during period of operation, 6.4 ft³/s (0.18 m³/s) Apr. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							6.9	8.4	47	63	84	77
2							6.4	8.8	39	62	86	78
3							6.9	8.4	38	67	89	77
4							7.4	7.9	45	72	83	80
5							7.9	7.4	47	69	77	83
6							8.4	7.4	43	59	64	87
7							8.8	7.4	37	47	64	82
8							11	7.4	81	43	65	86
9							9.3	7.4	82	41	68	89
10							8.4	10	39	37	64	87
11							7.4	22	37	37	59	83
12							7.4	25	24	39	58	80
13							6.9	25	23	40	58	77
14							6.9	32	25	40	57	73
15							6.9	33	25	39	58	70
16							8.4	32	25	40	58	70
17							12	33	29	39	59	71
18							9.8	33	30	41	60	73
19							8.4	35	31	46	64	74
20							8.4	35	32	68	63	75
21							7.9	36	43	62	53	75
22							7.9	36	81	69	57	72
23							7.9	54	64	62	58	73
24							7.4	67	67	60	58	72
25							6.8	64	65	62	57	70
26							8.8	69	64	89	58	67
27							9.3	52	65	113	59	67
28							9.8	50	49	113	59	63
29							8.4	51	42	97	63	59
30							8.4	55	49	89	69	50
31							---	64	---	78	73	---
TOTAL							248.5	983.5	1368	1883	2002	2240
MEAN							8.28	31.7	45.6	60.7	64.6	74.7
MAX							12	69	82	113	89	89
MIN							6.4	7.4	23	37	53	50
AC-FT							493	1950	2710	3730	3970	4440

06673500 KATZER DRAIN NEAR HENRY, NE

LOCATION.--Lat 41°58'45", long 104°04'15", in NW¼NW¼SW¼ sec.10, T.23 N., R.60 W., Goshen County, WY, Hydrologic Unit 10180009, on left bank 0.2 mi (0.3 km) upstream from bridge on county road, 0.8 mi (1.3 km) upstream from mouth, and 1.7 mi (2.7 km) southwest of Henry.

DRAINAGE AREA.--45.9 mi^2 (118.9 km^2), of which 8.2 mi^2 (21.2 km^2) is probably noncontributing.

PERIOD OF RECORD.--May 1928 to current year (no winter records prior to 1932 and since 1971).

REVISED RECORDS.--WSP 1710: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,040 ft (1,231 m), from topographic map. See WSP 1918 for history of changes prior to Dec. 1, 1950. Dec. 1, 1950, to Sept. 30, 1969, at site 1.0 mi (1.6 km) upstream at different datum. Oct. 1, 1969, to Mar. 31, 1974, at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Records good. Flow is mainly return water from land irrigated by Fort Laramie Canal.

COOPERATION.--Records collected and computed by Office of the Wyoming State Engineer and reviewed by Geological Survey.

AVERAGE DISCHARGE.--40 years (water years 1932-71), 19.6 ft^3/s (0.555 m^3/s), 14,200 acre-ft/yr (17.5 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,230 ft^3/s (34.8 m^3/s) May 19, 1938, gage height, 9.47 ft (2.886 m), site and datum then in use, from rating curve extended above 330 ft^3/s (9.35 m^3/s) on basis of slope-area measurement of peak flow; minimum daily, 0.50 ft^3/s (0.014 m^3/s) Jan. 14, 1937.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 478 ft^3/s (13.5 m^3/s) June 22, gage height, 4.80 ft (1.463 m); minimum daily during period of operation, 5.8 ft^3/s (0.16 m^3/s) May 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1							6.4	7.4	44	41	84	65
2							6.4	7.0	45	44	86	65
3							6.1	7.0	47	43	68	62
4							6.4	7.0	44	44	60	62
5							6.4	6.7	40	40	67	68
6							7.0	6.1	35	41	69	68
7							7.0	5.8	33	40	58	78
8							7.7	6.1	36	37	58	78
9							7.4	6.1	35	35	52	79
10							6.4	6.1	35	32	49	78
11							6.4	6.1	35	34	45	71
12							6.4	6.1	36	33	44	70
13							6.4	8.9	35	32	61	74
14							6.1	17	37	31	57	78
15							6.1	17	33	31	56	73
16							10	30	30	30	58	73
17							15	32	27	30	60	71
18							10	34	25	27	59	74
19							11	32	27	30	63	75
20							9.2	27	27	32	65	68
21							8.1	22	29	48	60	71
22							7.7	27	114	43	60	59
23							7.4	59	70	44	61	58
24							7.4	69	45	43	61	62
25							7.0	56	41	50	62	69
26							7.4	44	42	56	63	85
27							8.1	38	48	78	62	72
28							8.1	35	44	61	60	61
29							8.1	39	43	61	61	54
30							7.7	39	45	77	61	29
31							---	44	---	84	61	---
TOTAL							230.8	747.4	1227	1352	1891	2050
MEAN							7.69	24.1	40.9	43.6	61.0	68.3
MAX							15	69	114	84	86	85
MIN							6.1	5.8	25	27	44	29
AC-FT							458	1480	2430	2680	3750	4070

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE

LOCATION.--Lat 41°59'25", long 104°02'57", in SW¼NE¼SE¼ sec.4, T.23 N., R.58 W., Scottsbluff County, NE, Hydrologic Unit 10180009, on right bank 650 ft (198 m) upstream from bridge on NE State Highway 86, 700 ft (213 m) downstream from Wyoring-Nebraska State line, and 0.5 mi (0.8 km) south of Henry, NE.

DRAINAGE AREA (REVISED).--22,218 mi^2 (57,545 km^2), of which 1,929 mi^2 (4,996 km^2), is probably noncontributing. The 3,959 mi^2 (10,254 km^2) in Great Divide basin is not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1929 to current year.

REVISED RECORDS.--WSP 1918: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 4,020 ft (1,225 m), from topographic map. Prior to Nov. 6, 1929, nonrecording gage and Nov. 6, 1929, to Feb. 22, 1972, water-stage recorder at sites 0.5 mi (0.8 km) upstream at different datums.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, transbasin diversions, power development, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas Gering-Mitchell Canal diverst from right bank 0.8 mi (1.3 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 17,900 ft^3/s (507 m^3/s) June 2, 1929, gage height, 7.04 ft (2.146 m), site and datum then in use; minimum daily, 13 ft^3/s (0.37 m^3/s) May 12, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,830 ft^3/s (51.8 m^3/s) Aug. 1, gage height, 3.47 ft (1.058 m); minimum daily, 211 ft^3/s (5.98 m^3/s) Apr. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	615	442	330	230	295	277	226	716	515	975	1680	954
2	560	434	334	240	295	277	226	595	490	996	1480	926
3	535	418	354	280	292	271	220	475	462	1140	1570	877
4	515	410	366	276	271	271	217	458	446	1260	1690	849
5	500	406	358	285	260	262	217	446	462	1310	1430	926
6	490	406	354	285	280	256	220	338	398	1350	1260	835
7	495	402	350	280	292	256	223	370	370	1360	1180	849
8	495	398	354	275	298	265	211	402	350	1340	1090	863
9	495	394	358	284	318	262	244	422	402	1370	1080	863
10	500	386	358	289	330	265	226	434	334	1400	1060	814
11	505	382	358	280	338	265	223	426	338	1450	1070	752
12	495	378	354	280	334	244	223	430	402	1420	1090	704
13	490	378	350	286	326	253	217	438	590	1440	1100	662
14	495	378	342	283	318	250	217	458	740	1440	1120	638
15	595	374	334	292	314	268	220	475	835	1420	1130	626
16	674	374	322	301	310	250	295	565	856	1450	1230	620
17	662	374	318	307	307	247	414	540	863	1500	1190	620
18	575	370	334	322	301	250	422	540	842	1560	1180	610
19	525	374	318	322	295	250	398	540	849	1590	1140	632
20	490	366	318	318	292	244	394	550	849	1580	1100	632
21	475	366	322	322	286	241	394	605	856	1580	1020	605
22	470	358	322	318	283	244	422	686	983	1630	996	610
23	470	358	322	318	280	247	426	912	968	1560	996	610
24	470	366	322	310	280	241	402	905	926	1510	996	620
25	462	362	322	304	277	244	394	764	863	1520	1010	644
26	466	358	322	292	280	241	394	728	807	1630	1020	656
27	466	358	322	286	280	235	410	605	828	1700	1040	632
28	454	350	318	283	277	235	422	530	814	1610	1040	638
29	446	334	314	295	277	232	426	495	821	1610	1000	692
30	450	322	314	304	---	229	462	485	891	1530	968	650
31	446	---	318	298	---	226	---	540	---	1500	961	---
TOTAL	15781	11376	10382	9045	8586	7798	9405	16873	20150	44731	35917	21609
MEAN	509	379	335	292	296	252	314	544	672	1443	1159	720
MAX	674	442	366	322	338	277	462	912	983	1700	1690	954
MIN	446	322	314	230	260	226	211	338	334	975	961	605
AC-FT	31300	22560	20590	17940	17030	15470	18650	33470	39970	88720	71240	42860

CAL YR 1975 TOTAL 229736 MEAN 629 MAX 2440 MIN 200 AC-FT 455700
WTR YR 1976 TOTAL 211653 MEAN 578 MAX 1700 MIN 211 AC-FT 419800

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER-QUALITY RECORDS

LOCATION.--Daily water temperatures and samples for specific conductance collected at Farmers Canal diversion dam 1.0 mi (1.6 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1966 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1965 to September 1976 (discontinued).
WATER TEMPERATURES: October 1965 to September 1976 (discontinued).

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,030 micromhos Jan. 25, 1974, Jan. 12, 1975; minimum daily, 243 micromhos Dec. 2, 1967.
WATER TEMPERATURES: Maximum, 27.0°C July 4, 25, 1967; minimum, 0.0°C on many days during winter period most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily observed, 1,000 micromhos Jan. 5, Feb. 2; minimum daily, 676 micromhos Aug. 4.

WATER TEMPERATURES: Maximum observed, 24.5°c June 8; minimum, 0.5°C on several days during January and February.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
NOV									
03...	1615	418	910	13.0	2	9.9	B68	280	67
DEC									
02...	0900	334	890	6.0	3	9.6	140	300	54
JAN									
05...	1630	A285	1000	3.5	1	10.4	B6	300	62
FEB									
02...	1715	295	1000	6.0	6	10.2	B12	300	46
MAR									
03...	1630	274	960	4.0	4	11.1	B7	290	39
APR									
05...	1630	217	960	15.0	4	10.2	B10	280	32
MAY									
03...	1630	466	940	16.0	8	9.5	B18	250	43
JUN									
08...	1615	295	820	24.5	15	8.9	B30	270	65
JUL									
07...	1845	1310	710	23.0	20	7.4	52	240	84
AUG									
03...	0800	1640	790	17.0	10	7.9	B170	270	98
11...	1100	1100	--	20.0	--	--	--	240	68
30...	1600	947	740	23.0	9	8.6	46	240	68
SEP									
27...	1700	662	890	14.0	7	9.6	84	260	53

A Daily mean discharge.
B Results based on colony count outside the acceptable range (non-ideal colony count).

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)
NOV									
03...	79	20	84	2.2	6.5	260	0	213	220
DEC									
02...	83	22	87	2.2	7.2	300	0	246	220
JAN									
05...	87	21	77	1.9	5.8	290	0	238	210
FEB									
02...	83	22	94	2.4	6.7	310	0	254	220
MAR									
03...	82	21	94	2.4	6.5	300	3	251	230
APR									
05...	79	20	100	2.6	6.7	290	6	248	240
MAY									
03...	71	19	74	2.0	5.4	240	6	207	190
JUN									
08...	72	21	72	1.9	7.0	250	0	205	200
JUL									
07...	61	21	58	1.6	4.9	190	0	156	190
AUG									
03...	68	26	56	1.5	4.7	210	0	172	200
11...	65	20	60	1.7	4.7	210	0	172	190
30...	63	19	59	1.7	5.6	210	0	172	180
SEP									
27...	69	21	73	2.0	5.8	240	6	207	200

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
NOV 03...	17	.6	23	582	.79	657	.86	.01
DEC 02...	20	.6	28	623	.85	562	1.2	.04
JAN 05...	19	.5	28	600	.82	462	1.3	.03
FEB 02...	21	.6	29	638	.87	508	1.3	.02
MAR 03...	21	.6	28	636	.87	471	1.4	.04
APR 05...	21	.6	26	647	.88	379	1.0	.02
MAY 03...	19	.6	19	527	.72	663	.66	.03
JUN 08...	20	.6	17	536	.73	427	.63	.04
JUL 07...	16	.6	7.6	459	.62	1620	.27	.03
AUG 03...	15	.5	12	491	.67	2170	.25	.09
11...	14	.6	12	471	.64	1400	.54	.07
30...	13	.5	6.4	451	.61	1150	.66	.02
SEP 27...	17	.6	20	533	.72	953	1.3	.06

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
OCT 09...	0955	8.0	490	30	40
NOV 03...	1500	12.0	418	32	36
DEC 02...	1055	6.0	334	72	65
JAN 15...	1420	4.5	298	82	66
FEB 11...	1320	5.0	338	84	77
MAR 16...	1300	9.0	250	59	40
APR 06...	1245	10.0	223	28	17
JUN 09...	1310	21.0	426	783	901
JUL 14...	1235	22.0	1440	165	642
AUG 11...	1100	20.0	1100	158	469
SEP 09...	1300	15.5	870	2	4.7

DATE	TIME	TEMPERATURE (DEG C)	INSTANTANEOUS DISCHARGE (CFS)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM
JUN 09...	1310	21.0	426	0	0	3	45	78	90	98	100

06674500 NORTH PLATTE RIVER AT WYOMING-NEBRASKA STATE LINE--Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	834	910	944	878	917	897	896	735	761	718	714	717
2	859	896	944	894	917	887	905	743	750	731	723	713
3	883	908	958	890	924	890	899	761	755	727	737	726
4	872	908	944	892	901	880	907	762	765	718	676	724
5	872	916	931	876	898	885	907	786	747	721	686	729
6	824	899	931	871	935	894	884	775	786	711	701	729
7	863	896	931	919	935	896	894	741	798	718	710	735
8	885	903	911	939	928	917	889	734	798	713	719	730
9	885	903	893	925	942	907	954	716	823	713	726	743
10	885	918	906	885	914	912	912	711	820	707	733	759
11	865	855	904	889	881	898	899	706	795	715	709	752
12	869	923	899	910	903	899	896	716	800	705	694	799
13	867	913	901	895	872	901	901	720	741	710	703	777
14	865	931	898	902	874	907	901	715	730	705	700	774
15	852	913	904	907	874	813	907	729	735	705	717	782
16	815	937	914	883	885	892	839	728	735	720	686	788
17	815	928	899	906	894	899	793	731	751	708	717	792
18	859	928	917	921	894	910	837	740	747	712	707	775
19	870	942	938	906	892	892	843	731	744	708	699	777
20	874	885	912	906	892	901	859	741	746	712	717	785
21	885	928	910	907	883	903	859	742	750	707	713	788
22	885	917	912	908	898	892	848	743	763	717	702	779
23	883	917	908	920	916	892	837	749	791	719	714	798
24	842	928	907	893	909	901	843	754	752	713	698	803
25	874	943	897	893	904	892	817	749	770	717	712	787
26	889	943	896	913	904	892	818	738	773	705	707	800
27	907	941	910	901	890	897	787	730	765	696	726	813
28	910	910	901	916	889	828	777	746	757	717	700	814
29	890	913	917	915	892	889	794	766	771	732	723	784
30	912	927	880	943	---	896	777	754	761	727	715	811
31	912	---	878	927	---	901	---	748	---	719	720	---
MONTH	871	916	913	904	902	892	863	740	765	714	714	769
YEAR	MAX	958	MIN	676	MEAN	830						

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.0	8.5	2.0	1.0	4.0	3.5	9.0	10.0	18.5	19.5	20.5	17.5
2	10.5	8.5	6.0	0.5	5.0	4.0	10.0	10.5	18.5	20.0	18.0	17.5
3	11.5	9.0	7.0	1.0	5.5	1.0	6.5	11.5	19.0	18.0	17.5	18.0
4	12.0	9.0	6.0	0.5	0.5	1.5	8.0	14.0	19.0	20.5	20.0	17.0
5	12.0	8.5	6.5	1.5	0.5	1.0	9.5	13.0	18.5	21.0	19.5	18.0
6	12.0	8.5	4.5	1.5	0.5	2.0	11.0	11.0	18.5	21.0	19.5	18.5
7	13.0	8.0	5.5	0.5	1.5	4.0	10.5	12.0	19.0	20.5	20.0	19.0
8	11.5	8.0	6.5	1.0	4.0	5.0	10.5	12.5	19.5	20.5	20.0	16.5
9	9.0	7.0	7.0	1.0	7.0	6.0	10.0	13.0	19.0	22.0	20.5	13.0
10	10.0	4.5	7.0	2.0	6.5	6.5	10.5	15.0	18.5	21.0	20.0	15.0
11	10.5	5.0	6.5	1.0	5.0	7.5	11.0	16.0	19.5	22.0	19.5	16.0
12	11.0	3.0	4.5	2.5	5.0	1.0	11.0	13.0	17.0	21.5	19.5	17.5
13	12.0	5.0	4.5	3.0	5.5	2.0	13.0	11.0	17.0	21.0	20.0	17.0
14	10.0	6.0	2.0	1.0	6.0	4.0	11.0	14.0	15.0	21.0	19.0	16.5
15	8.0	7.0	1.0	4.0	6.0	3.0	12.0	15.0	13.0	20.5	20.0	16.0
16	9.5	7.5	1.5	6.5	5.5	4.0	10.5	11.5	17.0	20.5	19.5	16.0
17	9.5	7.0	1.0	5.5	5.0	6.5	7.5	13.5	16.0	21.0	21.0	17.0
18	9.0	5.5	1.0	5.0	4.0	8.0	8.0	15.0	14.5	20.5	20.5	17.0
19	10.0	5.0	3.0	3.0	2.0	9.0	10.5	16.0	15.0	21.0	21.5	17.0
20	10.0	1.5	3.0	3.0	3.0	4.0	10.5	16.5	17.5	21.5	20.5	15.0
21	10.0	1.0	2.5	4.0	3.0	3.5	12.0	16.5	19.0	19.5	20.5	15.0
22	10.5	1.5	3.0	3.5	2.0	4.0	11.0	15.5	20.0	20.0	20.5	15.5
23	8.0	4.5	2.0	3.5	3.0	4.5	12.0	13.0	16.0	21.0	20.0	15.5
24	6.0	4.0	2.5	2.5	3.5	7.0	10.5	12.5	16.5	21.5	19.0	15.5
25	4.5	3.0	4.0	2.0	4.5	8.0	10.0	14.5	17.5	21.5	20.0	15.0
26	7.0	2.5	4.0	0.5	5.5	6.5	9.0	15.5	17.0	21.5	20.0	15.0
27	9.5	3.0	5.5	1.0	6.5	8.5	6.5	17.0	17.5	21.0	18.0	13.0
28	8.0	2.0	5.0	4.0	6.5	7.5	6.0	18.5	18.5	21.5	17.5	12.0
29	7.5	1.5	2.5	5.0	5.0	7.0	8.5	18.0	19.5	21.0	18.5	12.0
30	8.5	1.0	4.0	6.0	---	6.0	9.0	17.0	19.0	21.0	19.0	13.0
31	10.5	---	2.5	3.5	---	5.5	---	17.5	---	21.5	18.0	---
MONTH	9.5	5.0	4.0	2.5	4.0	5.0	10.0	14.0	17.5	21.0	19.5	16.0
YEAR	MAX	22.0	MIN	0.5	MEAN	10.5						

06679500 NORTH PLATTE RIVER AT MITCHELL, NE

LOCATION.--Lat 41°55'38", long 103°48'48", in NE¼NE¼ sec.33, T.33 N., R.56 W., Scotts Bluff County, Hydrologic Unit 10180009, near right bank of main channel on downstream side of pier of bridge on State Highway 29, 0.5 mi (0.8 km) south of Mitchell.

DRAINAGE AREA (REVISED).--24,300 mi² (62,900 km²) approximately, of which about 2,000 mi² (5,180 km²) is noncontributing. Approximately 4,000 mi² (10,360 km²) in Great Divide basin is not included.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1901 to September 1910, May to December 1911, February 1912 to July 1913 (gage heights only), May 1916 to October 1918 (irrigation seasons only), May 1920 to current year. Monthly discharge only for some periods, published in WSP 1310.

REVISED RECORDS.--WDR NE-67: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,929.3 ft (1,197.65 m) above mean sea level. See WSP 1918 for history of changes prior to May 27, 1960. May 27, 1960, to Aug. 24, 1971, at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Natural flow of stream affected by transmountain diversions, storage reservoirs, power developments, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,500 ft³/s (779 m³/s) June 3, 1909, gage height, 6.45 ft (1.966 m), datum then in use, from graph based on gage readings, from rating curve extended above 17,000 ft³/s (481 m³/s); minimum daily observed, 25 ft³/s (0.71 m³/s) Sept. 25-29, 1908.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,170 ft³/s (33.1 m³/s) Sept. 30, gage height, 4.05 ft (1.234 m); minimum daily, 224 ft³/s (6.34 m³/s) July 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	795	645	500	610	535	454	730	490	312	585	273
2	1010	790	660	440	610	540	445	815	497	312	655	284
3	945	790	665	460	605	530	445	705	578	296	690	284
4	895	780	670	480	580	535	440	670	458	288	760	292
5	865	770	670	500	540	520	436	560	500	342	690	304
6	860	765	660	510	555	530	449	380	472	344	545	316
7	865	750	660	520	555	530	449	324	463	308	458	328
8	870	735	655	520	570	540	467	312	445	262	388	352
9	875	720	655	530	620	540	454	304	427	245	328	392
10	880	710	650	560	630	540	458	280	388	231	280	458
11	880	710	650	550	625	540	445	269	392	224	259	490
12	865	690	645	545	630	510	440	273	396	255	252	485
13	855	695	640	555	620	520	436	288	392	252	245	413
14	845	700	630	545	615	525	431	332	400	304	231	413
15	875	700	610	550	615	535	427	413	436	276	227	418
16	960	695	610	565	610	520	472	476	500	273	259	427
17	980	690	590	580	595	520	625	467	550	276	284	436
18	940	685	575	590	590	515	630	436	550	284	262	436
19	890	685	585	585	575	510	610	372	520	328	245	449
20	870	660	585	585	570	490	600	320	481	340	238	449
21	855	660	590	585	545	490	590	276	463	427	238	445
22	845	655	590	595	545	485	590	273	454	449	252	445
23	845	655	585	600	550	485	625	567	680	418	259	449
24	850	655	590	600	550	481	590	925	540	388	255	467
25	835	655	595	595	545	476	570	805	476	368	255	550
26	835	660	595	570	535	476	570	695	422	500	259	670
27	840	665	600	570	530	467	600	610	414	545	259	785
28	825	660	595	575	535	472	620	500	388	545	269	850
29	810	655	585	585	530	463	615	510	300	510	280	950
30	810	620	585	620	---	458	605	515	276	476	280	1100
31	805	---	600	610	---	458	---	490	---	445	273	---
TOTAL	27260	21055	19220	17175	16785	15736	15588	14892	13748	10823	10760	14410
MEAN	879	702	620	554	579	508	520	480	458	349	347	480
MAX	1080	795	670	620	630	540	630	925	680	545	760	1100
MIN	805	620	575	440	530	458	427	269	276	224	227	273
AC-FT	54070	41760	38120	34070	33290	31210	30920	29540	27270	21470	21340	28580

CAL YR 1975 TOTAL 215876 MEAN 591 MAX 1280 MIN 229 AC-FT 428200
WTR YR 1976 TOTAL 197452 MEAN 539 MAX 1100 MIN 224 AC-FT 391600

06679500 NORTH PLATTE RIVER AT MITCHELL, NE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water year 1964 and August 1976.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	TEMPERATURE (DEG C)	TOTAL PCB (UG/L)	PCB IN BOTTOM MATERIAL (UG/KG)	POLYCHLORINATED NAPHTHALENES (UG/L)	TOTAL ALDRIN (UG/L)	ALDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL CHLORDANE (UG/L)	CHLORDANE IN BOTTOM MATERIAL (UG/KG)
AUG										
31...	0800	278	16.5	.0	0	.00	.00	.0	.0	0

DATE	TOTAL DDD (UG/L)	DDD IN BOTTOM MATERIAL (UG/KG)	TOTAL DDE (UG/L)	DDE IN BOTTOM MATERIAL (UG/KG)	TOTAL DDT (UG/L)	DDT IN BOTTOM MATERIAL (UG/KG)	TOTAL DIAZINON (UG/L)	TOTAL DIELDRIN (UG/L)	DIELDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ENDRIN (UG/L)
AUG										
31...	.00	.0	.00	.5	.00	.0	.00	.00	.2	.00

DATE	ENDRIN IN BOTTOM MATERIAL (UG/KG)	TOTAL ETHION (UG/L)	TOTAL HEPTACHLOR (UG/L)	HEPTACHLOR IN BOTTOM MATERIAL (UG/KG)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	HEPTACHLOR EPOXIDE IN BOTTOM MATERIAL (UG/KG)	TOTAL LINDANE (UG/L)	LINDANE IN BOTTOM MATERIAL (UG/KG)	TOTAL MALATHION (UG/L)
AUG									
31...	.0	.00	.00	.0	.00	.0	.00	.0	.00

DATE	TOTAL METHYL PARATHION (UG/L)	TOTAL METHYL TRITHION (UG/L)	TOTAL PARATHION (UG/L)	TOTAL TOXAPHENE (UG/L)	TOXAPHENE IN BOTTOM MATERIAL (UG/KG)	TOTAL TRITHION (UG/L)	TOTAL 2,4-D (UG/L)	TOTAL 2,4,5-T (UG/L)	TOTAL SILVEX (UG/L)
AUG									
31...	.00	.00	.00	0	0	.00	.00	.00	.00

TRANSBASIN DIVERSIONS FROM NORTH PLATTE RIVER BASIN TO CACHE LA POUDRE RIVER BASIN IN COLORADO

The following seven diversions, which are equipped with water-stage recorders, divert water from tributaries of the North Platte River to the Cache la Poudre River or its tributaries. Records furnished by Colorado Division of Water Resources.

06745500 Cameron Pass ditch diverts water from tributaries of Michigan River in sec.10, T.6 N., R.76 W., to Joe Wright Creek (tributary to Cache la Poudre River) in sec.2, T.6 N., R.76 W.

06746000 Michigan ditch diverts water from Michigan River, headgate in sec.12, T.6 N., R.76 W., and many small tributaries and Agnes Creek (tributary to Michigan River), headgate in sec.15, T.6 N., R.76 W., to Joe Wright Creek (tributary to Cache la Poudre River) in sec.2, T.6 N., R.76 W.

06746500 Skyline ditch diverts water from West Branch Laramie River (tributary to Laramie River), headgate in sec.14, T.8 N., R.76 W., to Chambers Lake (tributary to Cache la Poudre River) in sec.31, T.8 N., R.75 W.

06747000 Laramie-Poudre tunnel diverts water from Laramie River in sec.7, T.8 N., R.75 W., and Rawah Creek (tributary to Laramie River) in sec.14, T.9 N., R.76 W., to Cache la Poudre River in sec.9, T.8 N., R.75 W.

06747200 Bob Creek ditch diverts water from Nunn Creek (tributary to Laramie River) in sec.9, T.9 N., R.75 W., to Roaring Creek (tributary to Cache la Poudre River) in sec.11, T.9 N., R.75 W.

06750000 Columbine ditch diverts water from Nunn Creek (tributary to Laramie River) in sec.3, T.9 N., R.75 W., to North Fork Cache la Poudre River (tributary to Caçhe la Poudre River) in sec.25, T.10 N., R.75 W.

06750500 Wilson supply ditch diverts water from Sand Creek in sec.22, T.11 N., R.75 W., and at times includes water diverted from tributaries of Deadman Creek in sec.9, T.10 N., R.75 W. Diversion is from the Laramie River basin to Sheep Creek (tributary to North Fork Cache la Poudre River) in sec.23, T.11 N., R.75 W., in the Cache la Poudre River basin. Records represent total flow diverted from the Laramie River basin by Wilson supply ditch.
REVISIONS (WATER YEARS).--WSP 1310: 1945, 1947.

DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Month	06745500 Cameron Pass ditch	06746000 Michigan ditch	06746500 Skyline ditch	06747000 Laramie-Poudre tunnel	06747200 Bob Creek ditch	06750000 Columbine ditch	06750500 Wilson supply ditch
October	0	0	0	0	0	0	0
November	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0
January	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0
May	0	225	0	3,800	0	0	649
June	141	1,320	0	9,790	0	0	1,150
July	79	76	0	5,180	0	0	96
August	0	149	0	0	0	0	0
September	0	0	0	0	0	0	0
Water year 1976	220	1,770	0	18,770	0	0	1,900

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained, and discharge measurements may have been made for purposes of establishing the stage-discharge relation, but these are not published herein. The years given in the period of record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Yellowstone River basin					
06218700	Wagon Gulch near Dubois, WY	Lat 43°34'42", long 109°44'13", in NE¼NE¼ sec.30, T.42 N., R.107 W., Fremont County, 600 ft upstream from U.S. Highways 26 and 287 and 6.2 miles northwest of Dubois. Prior to Oct. 1, 1970, at site 600 ft downstream at different datum.	4.89	1961-76	4- 7-76	14.81	39
06223700	Sand Draw near Crowheart, WY	Lat 43°15'50", long 109°05'05", in NE¼SW¼ sec.2, T.3 N., R.3 W., Fremont County, Wind River Indian Reservation, at culvert on U.S. Highway 26 and 6.3 miles southeast of Crowheart.	12.8	1961-76	8- 1-76	5.00	(†)
06223800	Wind River tributary No. 2 near Crowheart, WY	Lat 43°14'18", long 109°01'52", in SE¼NE¼ sec.18, T.3 N., R.2 W., Fremont County, Wind River Indian Reservation, at culvert on U.S. Highway 26 and 9.6 miles southeast of Crowheart.	3.16	1961-76	8- 1-76	4.93	5
06226200	Little Dry Creek near Crowheart, WY	Lat 43°32'10", long 109°05'20", in SW¼ sec.35, T.7 N., R.3 W., Fremont County, Wind River Indian Reservation, 800 ft upstream from Blue Draw Road and 16.5 miles north of Crowheart. Prior to June 16, 1965, at site 800 ft downstream at different datum.	10.5	1961-76	7-20-74 8- 1-76	4.50 4.51	a290 295
06226300	Dry Creek near Crowheart, WY	Lat 43°23'40", long 109°02'25", in NW¼SE¼ sec.19, T.5 N., R.2 W., Fremont County, Wind River Indian Reservation, on left bank 9.7 miles northeast of Crowheart.	97.9	1959, 1961-76	8- 1-76	10.29	530
06229700	Norkok Meadows Creek near Fort Washakie, WY	Lat 43°04'56", long 108°54'12", in NE¼NW¼ sec.8, T.1 N., R.1 W., Fremont County, Wind River Indian Reservation, 100 ft downstream from culvert on U.S. Highway 287 and 5.5 miles north of Fort Washakie.	15.4	1965-76	4-16-76	5.64	6
06229800	Sand Draw near Fort Washakie, WY	Lat 43°03'42", long 108°54'44", in NE¼SE¼ sec.18, T.1 N., R.1 W., Fremont County, Wind River Indian Reservation, at culvert on U.S. Highway 287 and 4.3 miles north of Fort Washakie.	.99	1961-76	4- 6-76	5.08	19
06229900	Trout Creek near Fort Washakie, WY	Lat 42°57'04", long 108°56'54", in NW¼NW¼ sec.25, T.1 S., R.2 W., Fremont County, Wind River Indian Reservation, 100 ft upstream from Blue Trail and 5.0 miles southwest of Fort Washakie. Prior to Oct. 1, 1968, at site 100 ft downstream at same datum.	16.1	1961-68, 1970-76	6- 7-76	b5.12	29
06233360	Monument Draw at lower station, near Hudson, WY	Lat 42°49'15", long 108°34'59", in SW¼NW¼ sec.21, T.33 N., R.98 W., Fremont County, on left bank 225 ft upstream from dirt road crossing and 5.8 miles south of Hudson.	8.38	1965-76	8- 1-76	4.70	293
06234800	Bobcat Draw near Sand Draw, WY	Lat 42°49'34", long 108°13'18", in NW¼NW¼ sec.21, T.33 N., R.95 W., Fremont County, about 500 ft upstream from culvert on Sand Draw Road, 0.3 mile upstream from mouth, and 5.0 miles north of Sand Draw.	c2.89	1969, 1971-76	8- 1-76	4.85	18
06236000	Kirby Draw near Riverton, WY	Lat 43°05'29", long 108°16'06", in NW¼SE¼ sec.3, T.1 N., R.5 E., Fremont County, Wind River Indian Reservation, on left bank 1.5 miles upstream from mouth and 7.0 miles northeast of Riverton.	129	1951-53, 1961-76	8- 1-76	4.34	385

See footnotes at end of table, p. 492.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Yellowstone River basin--Continued					
06238760	West Fork Dry Cheyenne Creek at upper station, near Riverton, WY	Lat 42°57'12", long 108°06'16", in NE¼NW¼ sec.4, T.34 N., R.94 W., Fremont County, on left bank 45 ft upstream from dim trail, 2.2 miles south of Ohio Road, and about 14 miles east of Riverton.	.69	1965-76	6-14-76	1.71	30
06255300	Poison Creek tributary near Shoshoni, WY	Lat 43°13'26", long 107°59'59", in NW¼NE¼ sec.33, T.38 N., R.93 W., Fremont County, at culvert on old U.S. Highways 20 and 26 and 5.2 miles east of Shoshoni.	.39	1959-76	8- 1-76	4.78	16
06256600	Red Creek near Arminto, WY	Lat 43°14'44", long 107°19'38", in SW¼SE¼ sec.19, T.38 N., R.87 W., Natrona County, at culvert on Lost Cabin-Arminto Road and 5.9 miles northwest of Arminto.	7.15	1963-76	8- 1-76	5.18	37
06256700	South Bridger Creek near Lysite, WY	Lat 43°26'40", long 107°45'22", in SE¼SE¼ sec.9, T.40 N., R.91 W., Fremont County, 600 ft downstream from bridge on Bridger Creek Road and 12.5 miles northwest of Lysite. Prior to Oct. 1, 1968, at site 600 ft upstream at different datum.	10.0	1960-76	8- 1-76	5.56	15
06257300	Shotgun Creek tributary near Pavillion, WY	Lat 43°27'35", long 108°44'37", in SW¼SE¼ sec.27, T.6 N., R.1 E., Fremont County, Wind River Indian Reservation, at bridge on dirt road, about 1 mile west of Shotgun Butte, and 15.2 miles north of Pavillion.	2.57	1961-76	7-23-75 4-16-76	7.36 6.13	d99 (†)
06265200	Sand Draw near Thermopolis, WY	Lat 43°48'30", long 108°28'00", in SW¼ sec.2, T.44 N., R.97 W., Hot Springs County, at culvert on State Highway 120 and about 17 miles northwest of Thermopolis.	6.33	1960-76	8- 1-76	6.45	292
06265600	Tie Down Gulch near Worland, WY	Lat 43°53'15", long 108°07'45", in NW¼NW¼ sec.10, T.45 N., R.94 W., Washakie County, at culvert on U.S. Highway 20 and 12.3 miles southwest of Worland.	1.78	1961-76	5-30-76	7.47	225
06266460	Murphy Draw near Grass Creek, WY	Lat 44°00'52", long 108°30'08", in SE¼NW¼ sec.28, T.47 N., R.97 W., Hot Springs County, on left bank 0.4 mile upstream from State Secondary Highway 2200 and 8.9 miles northeast of Grass Creek.	2.32	1965-76	6-14-76	2.18	11
06267260	North Prong East Fork Nowater Creek near Worland, WY	Lat 43°57', long 107°49', in SW¼SE¼ sec.18, T.46 N., R.91 W., Washakie County, on right bank 0.3 mile upstream from South Fork-Sand Creek Oil Field Road and 8.7 miles southeast of Worland.	3.77	1964-76	2-20-76	3.42	77
06268500	Fifteen Mile Creek near Worland, WY	Lat 44°01'14", long 108°00'42", in NW¼NW¼NE¼ sec.27, T.47 N., R.93 W., Washakie County, on left bank 300 ft upstream from Bighorn Canal spillway, 2.0 miles upstream from mouth, and 2.8 miles west of Worland.	518	1951-72‡, 1973-76	6-23-76	4.34	803
06269750	Nowood River tributary near Ten Sleep, WY	Lat 43°58'30", long 107°23'20", in NE¼NE¼ sec.11, T.46 N., R.88 W., Washakie County, at culvert on paved county road and 5.1 miles southeast of Ten Sleep.	.42	1960-76	3-18-76	5.12	15

See footnotes at end of table, p. 492.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Yellowstone River basin--Continued					
06274190	Nowood River tributary No. 2 near Basin, WY	Lat 44°16'42", long 107°54'33", in SE¼NE¼ sec.28, T.50 N., R.92 W., Big Horn County, on right bank 0.2 mile upstream from State Secondary Highway 0201, 2.7 miles east of Manderson, and 9.3 miles southeast of Basin.	1.51	1965-76	6-15-76	1.17	21
06274250	Elk Creek near Basin, WY	Lat 44°18'30", long 108°01'50", in NE¼ sec.16, T.50 N., R.93 W., Big Horn County, at bridge on Orchard Bench Road and 5.1 miles south of Basin.	96.9	1959-76	6-15-76	8.68	1,820
06277700	Twentyfour Mile Creek near Emblem, WY	Lat 44°27'32", long 108°36'30", in SE¼SW¼ sec.23, T.52 N., R.98 W., Park County, 300 ft downstream from culvert on U.S. Highways 14 and 20 and 10.0 miles southwest of Emblem.	12.8	1960-76	6- 6-76	11.76	32
06277750	Dry Creek tributary near Emblem, WY	Lat 44°27'42", long 108°34'12", in NW¼SW¼ sec.19, T.52 N., R.97 W., Big Horn County, at culvert on U.S. Highways 14 and 20 and 8.8 miles southwest of Emblem.	.65	1960-68, 1970-76	6- 6-76	3.12	24
06279020	Red Gulch near Shell, WY	Lat 44°32'04", long 107°50'06", in NE¼NW¼ sec.32, T.53 N., R.91 W., Big Horn County, 0.2 mile downstream from bridge on old section of U.S. Highway 14, 0.3 mile upstream from mouth, and 2.7 miles west of Shell. Prior to Oct. 1, 1971, at site 400 ft upstream at different datum.	47.8	1967, 1970-76	5-15-76	3.76	(†)
06299900	Slater Creek near Monarch, WY	Lat 44°54'32", long 107°02'49", in SE¼SW¼ sec.18, T.57 N., R.84 W., Sheridan County, 30 ft upstream from bridge on U.S. Highways 14 and 87, 0.2 mile upstream from mouth, and 0.9 mile northwest of Monarch.	18.0	1967-76	8- 2-76	56.62	90
06312700	South Fork Powder River near Powder River, WY	Lat 43°02'00", long 107°01'00", in SE¼NW¼ sec.3, T.35 N., R.85 W., Natrona County, 800 ft downstream from bridge on U.S. Highways 20 and 26 and 1.6 miles west of Powder River. Prior to July 11, 1973, at site 800 ft upstream at different datum.	262	1961-76	4-16-76	4.76	280
06312795	Sanchez Creek above reservoir, near Arminto, WY	Lat 43°20'23", long 107°10'48", in NE¼NE¼ sec.20, T.39 N., R.86 W., Natrona County, 0.9 mile upstream from Buffalo Creek Road, 1.0 mile upstream from mouth, and 12.3 miles northeast of Arminto.	5.53	1970-76	4-16-76	14.51	8
06312800	Sanchez Creek near Arminto, WY (station discontinued)	Lat 43°20'07", long 107°09'58", in NW¼SE¼ sec.21, T.39 N., R.86 W., Natrona County, on right bank about 200 ft upstream from Buffalo Creek Road and 12.3 miles northeast of Arminto. (Peaks after 1969 affected by small stockwater reservoir 0.2 mile upstream.)	5.95	1961-76	5-15-76	4.48	35
06313020	Bobcat Creek near Edgerton, WY	Lat 43°11'55", long 106°05'25", in NW¼NW¼ sec.10, T.37 N., R.77 W., Natrona County, on left bank about 300 ft upstream from jeep road, about 600 ft south of Seven L Ranch Headquarters, and 16.7 miles southeast of Edgerton.	8.29	1965-76	4-22-76	1.83	56

See footnotes at end of table, p. 492.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Yellowstone River basin--Continued					
06313050	East Teapot Creek near Edgerton, WY	Lat 43°10'50", long 106°12'40", in SE¼NE¼ sec.16, T.37 N., R.78 W., Natrona County, on right bank about 2 miles southwest of light duty road and 16.2 miles southeast of Edgerton.	5.44	1965-76	1976	(b)	<1
06313100	Coal Draw near Midwest, WY	Lat 43°27'00", long 106°14'00", in NE¼SE¼ sec.8, T.40 N., R.78 W., Natrona County, at bridge on State Highway 387 and 3.4 miles northeast of Midwest.	11.4	1961-76	5-30-76	7.12	340
06313630	Van Houten Draw near Buffalo, WY	Lat 44°10'40", long 106°07'25", in NE¼ sec.33, T.49 N., R.77 W., Johnson County, about 300 ft upstream from dirt road, 0.4 mile upstream from mouth, and 31 miles southeast of Buffalo.	10.8	1971-76	6-18-75 8- 4-76	9.68 8.75	a1,200 800
06316700	Powder River tributary near Buffalo, WY	Lat 44°30', long 106°08', in NE¼NW¼ sec.9, T.52 N., R.77 W., Johnson County, on right bank 0.5 mile upstream from bridge on Crazy Woman Creek-Arvada Road and about 30 miles northeast of Buffalo.	a1.64	1965-76	6-23-76	3.60	282
06317050	Rucker Draw near Spotted Horse, WY	Lat 44°43'10", long 105°53'10", in NW¼NE¼ sec.28, T.55 N., R.75 W., Campbell County, at culvert on U.S. Highways 14 and 16 and 2.7 miles west of Spotted Horse.	a3.98	1961-76	7-19-76	7.84	64
06319100	Bull Creek near Buffalo, WY (Formerly published as Sand Creek near Buffalo, WY)	Lat 44°16'38", long 106°44'42", in SW¼NE¼ sec.29, T.50 N., R.82 W., Johnson County, 3.5 miles upstream from bridge on U.S. Highway 87 and 5.5 miles southwest of Buffalo.	10.8	1969-76	8- 1-76	10.43	2,260
06324800	Little Powder River tributary near Gillette, WY	Lat 44°26'50", long 105°27'40", in NE¼ sec.36, T.52 N., R.72 W., Campbell County, 145 ft upstream from culvert on State Secondary Highway 0301 and 10.6 miles north of Gillette. Prior to Oct. 1, 1969, at site 125 ft downstream at same datum.	.81	1960-76	6-17-76	7.34	10
06324900	Cedar Draw near Gillette, WY	Lat 44°31'00", long 105°26'40", in NW¼ sec.6, T.52 N., R.71 W., Campbell County, at culvert on State Secondary Highway 0301 and 15.3 miles north of Gillette.	a3.45	1959-76	6-17-76	5.94	91
06324910	Cow Creek tributary near Weston, WY	Lat 44°32'35", long 105°21'40", in SE¼ sec.26, T.53 N., R.71 W., Campbell County, at culvert on dirt road, about 0.4 mile upstream from mouth, and about 6.6 miles south of Weston.	.72	1971-76	7- 2-76	8.17	153
		Cheyenne River basin					
06363700	Porcupine Creek near Turnercrest, WY (station discontinued)	Lat 43°37'40", long 105°28'00", in SW¼NE¼ sec.11, T.42 N., R.72 W., Campbell County, at bridge on State Highway 59 and 10.8 miles northeast of Turnercrest.	31.5	1959-76	1976		(e)
06379600	Box Creek near Bill, WY	Lat 43°06'20", long 105°15'35", in SW¼SE¼ sec.9, T.36 N., R.70 W., Converse County, on left bank 12 ft downstream from bridge on State Highway 59 and 8.8 miles south of Bill.	112	1956-58, 1959, 1961-76	1975 1976		a<1 <1

See footnotes at end of table, p. 492.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Cheyenne River basin--Continued					
06382200	Pritchard Draw near Lance Creek, WY	Lat 43°12, long 104°41, in SW¼NE¼ sec.8, T.37 N., R.65 W., Niobrara County, on right bank 200 ft upstream from unmaintained road, 4.1 miles west of Lance Creek-Cow Creek Road, and 11.9 miles north of Lance Creek.	f5.1	1964-76	6-16-76	11.89	2,580
06385400	Cottonwood Creek at Hat Creek, WY	Lat 42°56'15", long 104°21'55", in NE¼ sec.12, T.34 N., R.63 W., Niobrara County, at culvert on county road and 0.1 mile east of Hat Creek.	g14.5	1972-76	1976		(e)
06387500	Turner Creek near Osage, WY	Lat 44°01'10", long 104°30'10", in SW¼SE¼ sec.26, T.47 N., R.64 W., Weston County, at bridge on U.S. Highway 16 and 4.7 miles northwest of Osage.	47.8	1959-76	7-21-76	14.58	1,900
06388800	Blacktail Creek tributary near Newcastle, WY	Lat 43°47'53", long 104°10'52", in NE¼NE¼ sec.16, T.44 N., R.61 W., Weston County, at culvert on U.S. Highway 85 and 4.1 miles south of Newcastle.	.25	1960-76	7-31-76	5.44	27
06426195	Donkey Creek tributary above reservoir, near Gillette, WY	Lat 44°16'57", long 105°25'38", in NW¼SW¼ sec.29, T.50 N., R.71 W., Campbell County, 0.1 mile upstream from culvert on U.S. Highways 14 and 16, 0.2 mile upstream from mouth, and 3.8 miles east of Gillette.	.2	1970-76	2- 9-76	16.16	(†)
06426200	Donkey Creek tributary near Gillette, WY (station discontinued)	Lat 44°17'00", long 105°25'40", in SW¼NW¼ sec.29, T.50 N., R.71 W., Campbell County, at culvert on U.S. Highway 16 and 3.8 miles east of Gillette. (Peaks after 1968 affected by small stockwater reservoir 50 ft upstream.)	.28	1960-76	1976		(e)
06427700	Inyan Kara Creek near Upton, WY	Lat 44°13'45", long 104°26'45", in S½ sec.17, T.49 N., R.63 W., Crook County, at bridge on State Highway 116 and 13.0 miles northeast of Upton.	96.5	1959-76	6-14-76	6.95	140
06427880	Barlow Creek near Devils Tower, WY (station discontinued)	Lat 44°39'00", long 104°41'53", in NW¼SW¼ sec.20, T.54 N., R.65 W., Crook County, at culvert on Tower Road, 1.8 miles downstream from Sawmill Gulch, and 4.1 miles north of Devils Tower.	21.9	1971-76	6-14-76	h12.68	<360
06428100	Belle Fourche River tributary No. 2 near Hulett, WY	Lat 44°41'35", long 104°32'10", in SW¼SW¼ sec.3, T.54 N., R.64 W., Crook County, at culvert on State Highway 24 and 3.2 miles east of Hulett.	10.2	1962-76	6-14-76	1.88	(†)
06429300	Ogden Creek near Sundance, WY	Lat 44°27'30", long 104°21'10", in SW¼SW¼ sec.30, T.52 N., R.62 W., Crook County, on left bank 225 ft upstream from bridge on Sundance-Farrall Road and 3.9 miles northeast of Sundance. Prior to 1967, station Nos. 06429299 and 06429300 published as separate stations.	8.42	1962-76	5-22-75 6-14-76	a1.26 2.21	(†) (†)
		Platte River basin					
06629150	Coal Bank Draw tributary near Walcott, WY	Lat 41°44'05", long 106°43'18", in SE¼NW¼ sec.3, T.20 N., R.83 W., Carbon County, on right bank 60 ft downstream from dirt road and 6.6 miles southeast of Walcott.	3.65	1962-76	4- 8-76	6.86	65

See footnotes at end of table, p. 492.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Platte River basin--Continued					
06629200	Coal Bank Draw tributary No. 2 near Walcott, WY	Lat 41°44'19", long 106°43'36", in NE¼NE¼ sec.4, T.20 N., R.83 W., Carbon County, on left bank 6.3 miles southeast of Walcott.	2.41	1962-76	4- 8-76	6.27	33
06629800	Coal Creek near Rawlins, WY	Lat 41°45'44", long 107°16'07", in NW¼SW¼ sec.30, T.21 N., R.87 W., Carbon County, 0.2 mile upstream from State Secondary Highway 0402 and 2 miles southwest of Rawlins. Prior to June 25, 1970, at site 0.2 mile downstream at different datum.	7.32	1959-76	7-26-76	16.33	36
06630200	Big Ditch tributary near Hanna, WY	Lat 41°51'45", long 106°31'35", in SE¼ sec.21, T.22 N., R.81 W., Carbon County, at culvert on U.S. Highway 30 and 2 miles southeast of Hanna.	7.42	1959-76	8-31-76	5.65	97
06631150	Third Sand Creek near Medicine Bow, WY	Lat 41°45', long 106°19', in SE¼SE¼ sec.29, T.21 N., R.79 W., Carbon County, on right bank 60 ft upstream from bridge on Medicine Bow-Elk Mountain Road and 11.0 miles southwest of Medicine Bow.	10.8	1965-76	8- 1-76	2.83	240
06634200	Sheep Creek near Marshall, WY	Lat 42°16'48", long 105°53'06", in NW¼SW¼ sec.30, T.27 N., R.75 W., Albany County, 500 ft downstream from culverts on Marshall Road and 2.4 miles southwest of Marshall. Prior to Oct. 1, 1969, at site 500 ft upstream at different datum.	61.0	1961-76	4- 9-76	6.48	535
06634300	Sheep Creek near Medicine Bow, WY	Lat 42°07'48", long 106°00'19", in NW¼NW¼ sec.19, T.25 N., R.76 W., Albany County, at bridge on Marshall Road and 19.5 miles northeast of Medicine Bow.	174	1961-76	5-11-76	6.19	232
06634910	Medicine Bow River tributary near Hanna, WY	Lat 42°00'32", long 106°29'32", in SE¼NW¼ sec.35, T.24 N., R.81 W., Carbon County, on left bank 0.2 mile upstream from dirt road, 1.0 mile east of North Road, and 10.2 miles northeast of Hanna.	3.01	1965-76	8- 1-76	6.02	856
i06637550	Sweetwater River near South Pass City, WY	Lat 44°22'30", long 108°52'56", in NW¼NW¼ sec.28, T.28 N., R.101 W., Fremont County, on left bank 100 ft downstream from small tributary, 0.8 mile downstream from Fog Gulch, 1.2 miles downstream from State Highway 28, and 7.6 miles southwest of South Pass City.	177	1958-73‡; 1974-76	5-22-76	6.51	783
i06638300	West Fork Crooks Creek near Jeffrey City, WY	Lat 42°20'56", long 107°51'45", in SE¼SW¼ sec.31, T.28 N., R.92 W., Fremont County, at culvert on dirt road and 10.1 miles south of Jeffrey City.	11.6	1961-76	5-19-76	b2.8	2
06638350	Coal Creek near Muddy Gap, WY	Lat 42°20'23", long 107°28'02", in NE¼SE¼ sec.4, T.27 N., R.89 W., Carbon County, 500 ft upstream from culvert on U.S. Highway 287 and 1.0 mile southwest of Muddy Gap. Prior to Oct. 1, 1970, at site 500 ft downstream at different datum.	6.08	1961-76	8- 1-76	14.31	18
06641400	Bear Springs Creek near Alcova, WY	Lat 42°31'57", long 106°41'56", in SE¼SE¼ sec.30, T.30 N., R.82 W., Natrona County, 250 ft upstream from culvert on Kortes Road and 1.6 miles southeast of Alcova. Prior to Oct. 1, 1970, at site 250 ft downstream at same datum.	9.33	1960-76	8- 1-76	13.06	285

See footnotes at end of table, p. 492.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Platte River basin--Continued					
06642700	Lawn Creek near Alcova, WY	Lat 42°29'21", long 106°27'28", in SW¼SW¼ sec.8, T.29 N., R.80 W., Natrona County, at bridge on State Highway 487 and 13.9 miles southeast of Alcova.	11.5	1961-76	8- 1-76	6.66	267
06642760	Stinking Creek near Alcova, WY	Lat 42°32'31", long 106°27'32", in SE¼NE¼ sec.30, T.30 N., R.80 W., Natrona County, at bridge on Bates Hole Stock Trail and 13.2 miles east of Alcova.	117	1961-76	8- 1-76	7.53	2,200
06643300	Coal Creek near Goose Egg, WY	Lat 42°42'47", long 106°32'13", in SW¼NW¼ sec.27, T.32 N., R.81 W., Natrona County, 0.2 mile upstream from culvert on State Highway 220 and 4.2 miles southwest of Goose Egg. Prior to Oct. 1, 1970, at site 0.2 mile downstream at different datums.	5.39	1960-76	8- 1-76	7.46	165
06644840	McKenzie Draw tributary near Casper, WY	Lat 43°06'20", long 106°09'05", in SW¼NE¼ sec.12, T.36 N., R.78 W., Natrona County, on right bank about 2,000 ft northwest of Ormsby Road and about 22 miles northeast of Casper.	2.02	1965-76	5-23-76	3.20	63
06646700	East Fork Dry Creek tributary near Glenrock, WY	Lat 42°47'37", long 105°49'40", in SW¼SW¼ sec.26, T.33 N., R.75 W., Converse County, at culvert on Boxelder Road and 4.9 miles southeast of Glenrock.	2.60	1961-76	6-14-76	5.99	42
06648780	Sage Creek tributary near Orpha, WY	Lat 43°00'35", long 105°40'00", in NE¼NW¼ sec.18, T.35 N., R.73 W., Converse County, on right bank 600 ft upstream from culvert on Ross Road and about 14 miles northwest of Orpha.	1.38	1965-76	1976		(e)
06649900	North Platte River tributary near Douglas, WY	Lat 42°41'22", long 105°23'30", in SW¼NE¼ sec.5, T.31 N., R.71 W., Converse County, at culvert on Esterbrook Road and 4.2 miles south of Douglas.	8.53	1961-76	7-26-76	4.89	85
06651800	Sand Creek near Orin, WY	Lat 42°40'09", long 105°12'44", in NE¼SE¼ sec.11, T.31 N., R.70 W., Converse County, at bridge on old U.S. Highway 87 and 1.6 miles northwest of Orin.	27.8	1955, 1961-76	7- 2-76	7.94	1,600
06652200	Shawnee Creek tributary near Orin, WY (station discontinued)	Lat 42°41'14", long 105°06'28", in NW¼SW¼ sec.2, T.31 N., R.69 W., Converse County, at culvert on U.S. Highway 20 and 4.6 miles northeast of Orin.	.33	1961-76	3- -76	j2.6	<1
06652400	Watson Draw near Lost Springs, WY	Lat 42°45'20", long 104°57'30", in SW¼SE¼ sec.12, T.32 N., R.68 W., Converse County, 350 ft downstream from culvert on U.S. Highway 20 and 2.1 miles southwest of Lost Springs. Prior to Sept. 30, 1963, at site 250 ft upstream at different datum.	6.95	1960-76	8-15-76	5.00	97
06655380	Fish Canyon near Guernsey, WY (station discontinued)	Lat 42°19'00", long 104°45'45", in SE¼NW¼ sec.15, T.27 N., R.66 W., Platte County, on right bank about 200 ft upstream from Shore Road around Guernsey Reservoir and 3.4 miles northwest of Guernsey.	1.06	1965-76	1976		(e)
06661580	Sevenmile Creek near Centennial, WY	Lat 41°27'29", long 106°00'36", in NW¼SE¼ sec.11, T.17 N., R.77 W., Albany County, at culvert on county road and 12.7 miles northeast of Centennial.	11.2	1962-76	5-23-76	4.99	41

See footnotes at end of table, p. 492.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Platte River basin--Continued					
06668040	Rabbit Creek near Wheatland, WY	Lat 42°12'57", long 105°13'43", in NW¼NE¼ sec.22, T.26 N., R.70 W., Platte County, on right bank 200 ft east of Fletcher Park Road and about 17 miles northwest of Wheatland.	f1.3	1965-76	7-26-76	1.14	86
06670100	Laramie River tributary near Guernsey, WY	Lat 42°09'08", long 104°42'25", in N½SW¼ sec.7, T.25 N., R.65 W., Platte County, at culvert on county road, 0.4 mile upstream from mouth, and 9.4 miles south of Guernsey.	1.97	1971-76	1976		(e)
06670480	Laramie River tributary No. 2 near Fort Laramie, WY (station discontinued)	Lat 42°11'12", long 104°32'47", in SW¼NE¼ sec.33, T.26 N., R.64 W., Goshen County, 0.1 mile upstream from dirt road, 1.3 miles upstream from mouth, and 2.5 miles southwest of Fort Laramie.	8.91	1971-76	1976		(e)
06670985	Dry Rawhide Creek near Lingle, WY	Lat 42°18'14", long 104°18'18", in NE¼NE¼ sec.21, T.27 N., R.62 W., Goshen County, 400 ft upstream from culvert on U.S. Highway 85, 0.6 mile upstream from mouth, and 11.5 miles north of Lingle.	20	1969-76	1976		(e)
06675300	Horse Creek tributary near Little Bear, WY	Lat 41°27'21", long 104°53'00", in NW¼SW¼ sec.10, T.17 N., R.67 W., Laramie County, at culvert on U.S. Highway 87 and 6.1 miles south of Little Bear. Prior to Sept. 30, 1966, at different datum.	8.16	1961-76	1976	(b)	<1
06676700	South Fork Bear Creek near Little Bear, WY (station discontinued)	Lat 41°33'43", long 104°52'57", in SW¼NW¼ sec.3, T.18 N., R.67 W., Laramie County, at bridge on U.S. Highway 87 and 1.3 miles north of Little Bear.	34.2	1960-76	7-20-76	11.01	(†)
06761600	Ninemile Draw tributary near Federal, WY (station discontinued)	Lat 41°15'05", long 105°02'34", in SE¼SE¼ sec.19, T.15 N., R.68 W., Laramie County, at culvert on State Secondary Highway 1100 and 4.0 miles southeast of Federal.	1.49	1960-76	1976		(e)
06761700	Muddy Creek tributary near Burns, WY (station discontinued)	Lat 41°09'16", long 104°20'57", in NE¼NE¼ sec.30, T.14 N., R.62 W., Laramie County, at culvert on State Secondary Highway 1103 and 2.3 miles south of Burns.	24.8	1960-76	1976		(e)
06761900	Lodgepole Creek tributary near Pine Bluffs, WY	Lat 41°15'23", long 104°04'50", in NE¼NE¼ sec.21, T.15 N., R.60 W., Laramie County, at culvert on State Secondary Highway 1104 and 5.0 miles north of Pine Bluffs.	.44	1960-76	1976		(e)
06762600	Lodgepole Creek tributary No. 2 near Albin, WY	Lat 41°19'11", long 104°04'49", in SE¼SE¼ sec.28, T.16 N., R.60 W., Laramie County, at culvert on State Secondary Highway 1104 and 6.8 miles south of Albin.	5.69	1960-76	4-17-76	6.95	183

† Discharge not determined.
‡ Operated as a continuous-record gaging station.
a Revised.
b Peak stage did not reach bottom of gage.
c Of which 0.50 mi^2 is probably noncontributing.
d Not previously published.
e No evidence of flow.
f Approximately.
g Of which 2.5 mi^2 is probably noncontributing.
h Backwater from logs & debris at upstream end of culvert.
i Water-quality data is published elsewhere in this report.
j Backwater from ice & snow.

Discharge measurements made at miscellaneous sites during water year 1976

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Yellowstone River basin				
Unnamed tributary	Sunshine Reservoir	Lat 44°01'55", long 109°03'00", in NW¼NE¼NW¼ sec.24, T.47 N., R.102 W., Park County, 0.2 mile upstream from mouth and high-water line of Sunshine Reservoir, and 12 miles southwest of Meeteetse.		1975	12-19-75	0.39
					1-22-76	.38
					3- 5-76	.32
					4-10-76	.58
					5- 3-76	1.6
					6- 1-76	3.7
					7- 7-76	4.1
					8-12-76	1.1
					9- 9-76	1.6
Dick Creek	Wood River	Lat 43°59'24", long 109°02'48", in SE¼SE¼SW¼ sec.36, T.47 N., R.102 W., Park County, at culvert on Wood River Road, 1.0 mile upstream from mouth, and 14 miles southwest of Meeteetse.			12- 3-75	2.8
					1- 5-76	2.6
					2- 2-76	2.6
					3- 5-76	1.8
					4- 5-76	6.0
					5- 3-76	9.8
					6- 1-76	18
					6- 9-76	11
					7- 6-76	.62
					8-11-76	.21
					9- 9-76	1.3
Tongue River Cave Creek	Tongue River	Lat 44°50'26", long 107°19'50", in NW¼NW¼SE¼ sec.10, T.56 N., R.87 W., Sheridan County, Bighorn National Forest, in Tongue River Cave, 1,300 ft south of cave entrance (880 ft below land surface), and 4.0 miles southwest of Dayton.		1974-75	4-19-76	*2.3
					5-19-76	*3.3
					5-19-76	*3.5
					5-31-76	*2.0
Pass Creek	North Fork Powder River	Lat 43°55'13", long 106°53'51", in SE¼SE¼SW¼ sec.25, T.46 N., R.84 W., Johnson County, at mouth, and 8.0 miles northwest of Mayoworth.		1971, 1975	10-30-75	*4.0
					11-25-75	4.2
		Platte River basin				
Hog Park Creek 06623820	Encampment River	Lat 41°02'01", long 106°51'33", in SW¼SE¼ sec.5, T.12 N., R.84 W., Carbon County, about 800 ft downstream from Hog Park Creek Dam, and 13.2 miles southwest of Encampment.		1967-75	10-23-75	4.7
					6-11-76	171
					7-22-76	20
					8-19-76	5.1
					9-17-76	1.5
Sweetwater River	North Platte River	Lat 42°34'48", long 108°01'28", in NW¼NE¼NW¼ sec.13, T.30 N., R.94 W., Fremont County, 100 ft upstream from pipeline crossing and 8.5 miles northeast of Sweetwater Station.			10-21-75	*51
					10-22-75	*48
					11- 4-75	*61
Long Creek	Sweetwater River	Lat 42°34'19", long 107°57'52", in NE¼NE¼SW¼ sec.16, T.30 N., R.93 W., Fremont County, 0.2 mile upstream from mouth and 9.2 miles northwest of Jeffrey City.			10-21-75	*1.1
Sweetwater River	North Platte River	Lat 42°31'23", long 107°47'58", in SW¼SE¼SE¼ sec.35, T.30 N., R.92 W., Fremont County, 0.2 mile south of Grieve Ranch and 1.3 miles north of Jeffrey City.			10-22-75	*52
					11- 4-75	*59
Sweetwater River	North Platte River	Lat 42°31'35", long 107°47'14", in SE¼NE¼SW¼ sec.36, T.30 N., R.92 W., Fremont County, 150 ft upstream from bridge on county road, 0.5 mile east of Grieve Ranch, and 1.8 miles northeast of Jeffrey City.			11- 6-75	*67
Sweetwater River	North Platte River	Lat 42°29'07", long 107°36'36", in center of sec.16, T.29 N., R.90 W., Natrona County, 200 ft downstream from bridge, 0.1 mile downstream from Cottonwood Creek, and 2.1 miles northwest of Split Rock.			11- 6-75	*68

Discharge measurements made at miscellaneous sites during water year 1976

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
		Platte River basin--Continued				
Sweetwater River	North Platte River	Lat 42°28'49", long 107°27'00", in NE¼SW¼SE¼ sec.14, T.29 N., R.89 W., Natrona County, 4.0 miles downstream from Dry Draw and 6.6 miles east of Split Rock.			11- 6-75	*74
Laramie River	North Platte River	Lat 42°08'22", long 104°44'42", in NW¼NE¼SW¼ sec.14, T.25 N., R.66 W., Platte County, 3.7 miles upstream from diversion to Bright and Southerland Ditch, 9 miles south of Guernsey, and 13 miles northeast of Wheatland.			3-30-76	93
North Platte River	Platte River	Lat 42°11'51", long 104°31'44", in NW¼NW¼SE¼ sec.27, T.26 N., R.64 W., Goshen County, 0.2 mile downstream from Laramie River and 1.1 miles southwest of Fort Laramie.			3-30-76	105

* Base flow.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MADISON RIVER BASIN

442715110504001 IRON SPRING CREEK ABOVE OLD FAITHFUL SEWAGE LAG, YNP (LAT 44 27 15 LONG 110 50 40)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT 21...	1100	10	125	7.1	14.0	--	--	15	0	5.3
SEP 19...	1110	--	140	7.5	13.5	7.7	81	15	0	5.0

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT 21...	.5	17	1.9	3.7	45	0	37	3.6	8.3	3.4
SEP 19...	.6	17	1.9	3.6	41	0	34	5.5	8.0	3.9

DATE	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED ORGANIC CARBON (C) (MG/L)
OCT 21...	60	124	.17	3.35	.00	.01	.01	10	.0
SEP 19...	59	123	.17	--	.08	.45	.00	30	.8

442726110504801 IRON SPRING CREEK BELOW OLD FAITHFUL SEWAGE LAG, YNP (LAT 44 27 26 LONG 110 50 48)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
OCT 21...	1400	10	170	7.2	15.5	--	--	35	0	13
SEP 19...	1145	--	190	7.3	16.0	8.1	87	15	0	5.1

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
OCT 21...	.6	25	1.8	4.4	61	0	50	4.6	14	3.5
SEP 19...	.6	25	2.8	4.4	42	0	34	6.2	16	4.3

DATE	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED ORGANIC CARBON (C) (MG/L)
OCT 21...	66	161	.22	4.35	.00	.12	.02	20	2.3
SEP 19...	65	147	.20	--	.01	.45	.03	20	1.3

B Results based on colony count outside the acceptable range (non-ideal colony count).

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MADISON RIVER BASIN

06036813 IRON SPRING CREEK NEAR EMERALD POOL, YNP (LAT 44 27 41 LONG 110 51 08)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)
SEP 19...	1020	160	7.6	11.0	8.4	B2	11	0	3.7

DATE	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
SEP 19...	.4	22	2.9	4.4	41	0	34	6.1	14

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOL-VED ORGANIC CARBON (C) (MG/L)
SEP 19...	3.9	59	134	.18	.02	.21	.00	20	1.4

B Results based on colony count outside the acceptable range (non-ideal colony count).

443835110515001 MADISON RIVER NEAR MADISON JUNCTION, YNP (LAT 44 38 35 LONG 110 51 50)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	FECAL COLI-FORM (COL. PER 100 ML)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)
SEP 19...	0845	450	7.3	13.0	7.8	26	22	0	7.0

DATE	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)
SEP 19...	1.0	74	6.9	9.1	107	0	88	21	56

DATE	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOL-VED ORGANIC CARBON (C) (MG/L)
SEP 19...	6.2	80	307	.42	.07	.72	.03	20	2.3

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

MADISON RIVER BASIN

443832110522801 MADISON RIVER BELOW MADISON JUNCTION, YNP (LAT 44 38 32 LONG 110 52 28)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
SEP									
19...	0920	460	7.0	13.5	7.9	35	20	0	6.7

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
SEP									
19...	.7	78	7.7	9.1	114	0	94	23	56

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED ORGANIC CARBON (C) (MG/L)
SEP									
19...	6.2	83	319	.43	.07	.23	.02	90	2.7

YELLOWSTONE RIVER BASIN

443446110223001 YELLOWSTONE RIVER BELOW FISHING BRIDGE, YNP (LAT 44 34 46 LONG 110 22 30)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	FECAL COLIFORM (COL. PER 100 ML)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
SEP									
18...	1550	115	8.0	15.0	8.9	B8	23	0	5.6

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
SEP									
18...	2.2	10	.9	2.1	37	0	30	10	5.5

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED IRON (FE) (UG/L)	DISSOLVED ORGANIC CARBON (C) (MG/L)
SEP									
18...	.8	11	66	.09	.08	.55	.01	110	2.7

B Results based on colony count outside the acceptable range (non-ideal colony count).

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

434336108352800 SOUTH FORK OWL CREEK AT MOUTH, NEAR ARAPAHOE RANCH, WY (LAT 43 43 36 LONG 108 35 28)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
SEP 14...	547	230	82	61	19	27	.8	1.9	180	0

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
SEP 14...	148	140	2.3	.3	17	357	.49	.09	.05

434204108473200 NORTH FORK OWL CREEK ABOVE RATTLESNAKE CREEK, NEAR ANCHOR DAM, WY (LAT 43 42 04 LONG 108 47 32)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
MAY 20...	150	--	--	--	--	--	--	--	--	--
SEP 14...	305	66	0	18	4.7	43	2.3	1.4	120	15

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
MAY 20...	--	--	--	--	--	--	--	--	--
SEP 14...	123	31	1.4	.4	23	195	.27	.05	.14

434137108143500 OWL CREEK 1.0 MILE ABOVE MEETEETSE DRAW, NEAR THERMOPOLIS, WY (LAT 43 41 37 LONG 108 14 35)

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
SEP 04...	830	550	180	91	250	3.8	4.4	340	0

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
SEP 04...	279	1100	13	.8	18	1810	2.46	.11	.20

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

434319108093100 OWL CREEK AT MOUTH, NEAR LUCERNE, WY (LAT 43 43 19 LONG 108 09 31)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
SEP										
14...	2190	730	440	170	75	270	4.3	6.0	360	0

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
SEP									
14...	295	960	22	1.0	20	1700	2.31	.56	.05

435516107163700 SPRING CREEK ABOVE MARYS CREEK, NEAR TEN SLEEP, WY (LAT 43 55 16 LONG 107 16 37)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
SEP										
15...	375	210	3	47	23	1.2	.0	.9	240	6

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
SEP									
15...	207	8.2	1.8	.2	11	218	.30	.68	.05

435452107180600 ALKALI CREEK TRIBUTARY POND NEAR BIG TRAILS, WY (LAT 43 54 52 LONG 107 18 06)

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
SEP									
12...	230	130	71	13	5.9	.2	23	120	0

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
SEP									
12...	98	150	12	.4	36	372	.51	.52	.97

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

435940107240500 ALKALI CREEK AT MOUTH, NEAR TEN SLEEP, WY (LAT 43 59 40 LONG 107 24 05)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
MAY 13...	3900	--	--	--	--	--	--	--	--	--
SEP 12...	--	1400	1300	350	130	130	1.5	11	160	0

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
MAY 13...	--	--	--	--	--	--	--	--	--
SEP 12...	131	1500	25	1.3	16	2210	3.01	.00	.01

440400107223600 TENSLEEP CREEK ABOVE CANYON CREEK, NEAR TEN SLEEP, WY (LAT 44 04 00 LONG 107 22 36)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
SEP 08...	135	--	--	--	--	--	--	--	--	--
09...	--	68	2	15	7.3	1.8	.1	.5	81	0

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
SEP 08...	--	--	--	--	--	--	--	--	--
09...	66	2.5	3.3	.1	7.7	78	.11	.05	.01

440217107254700 TENSLEEP CREEK BELOW VICTORIA DITCH DIVERSION, AT TEN SLEEP, WY (LAT 44 02 17 LONG 107 25 47)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
SEP 09...	345	10.0	180	47	45	17	2.9	.1	1.2	150

DATE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
SEP 09...	6	133	58	.0	.3	10	213	.29	.16	.03

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

440211107261500 UNNAMED POND AT TEN SLEEP, WY (LAT 44 02 11 LONG 107 26 15)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
SEP 09...	2380	1700	1500	490	110	20	.2	9.1	240	0

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
SEP 09...	197	1500	2.7	1.0	28	2310	3.14	.56	.02

440158107263100 TENSLEEP CREEK 0.3 MILE EAST OF TEN SLEEP, WY (LAT 44 01 58 LONG 107 26 31)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
SEP 09...	610	370	210	110	25	4.7	.1	2.1	190	0

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
SEP 09...	156	230	.0	.3	12	472	.64	.29	.03

440639107271800 BROKENBACK CREEK ABOVE SALT TROUGH CREEK, NEAR TEN SLEEP, WY (LAT 44 06 39 LONG 107 27 18)

DATE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
SEP 10...	260	20	54	31	1.8	.0	1.2	280	6

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
SEP 10...	240	17	.9	.3	11	262	.36	.38	.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

440804107265100 CAROTHERS LAKE NEAR TEN SLEEP, WY (LAT 44 08 04 LONG 107 26 51)

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
MAY 14...	695	--	--	--	--	--	--	--	--	--
SEP 10...	--	420	340	90	47	5.3	.1	2.3	95	0

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
MAY 14...	--	--	--	--	--	--	--	--	--
SEP 10...	78	340	1.9	.6	26	563	.77	.20	.01

440923107280900 UNNAMED RESERVOIR ABOVE RENNER RESERVOIR, NEAR TEN SLEEP, WY (LAT 44 09 23 LONG 107 28 09)

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
MAY 14...	3450	--	--	--	--	--	--	--	--	--
SEP 10...	--	2300	2200	490	250	77	.7	1.4	92	0

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
MAY 14...	--	--	--	--	--	--	--	--	--
SEP 10...	75	2200	15	1.4	.7	3120	4.24	.02	.03

441033107300800 RENNER RESERVOIR NEAR HYATTVILLE, WY (LAT 44 10 33 LONG 107 30 08)

DATE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	HARD- NESS (CA,MG) (MG/L)	NON- CAR- BONATE HARD- NESS (MG/L)	DIS- SOLVED CAL- CIUM (CA) (MG/L)	DIS- SOLVED MAG- NE- SIUM (MG) (MG/L)	DIS- SOLVED SODIUM (NA) (MG/L)	SODIUM AD- SORP- TION RATIO	DIS- SOLVED PO- TAS- SIUM (K) (MG/L)	BICAR- BONATE (HCO3) (MG/L)	CAR- BONATE (CO3) (MG/L)
MAY 18...	2950	--	--	--	--	--	--	--	--	--
SEP 10...	--	2000	1900	540	160	120	1.2	11	69	0

DATE	ALKA- LINITY AS CACO3 (MG/L)	DIS- SOLVED SULFATE (SO4) (MG/L)	DIS- SOLVED CHLO- RIDE (CL) (MG/L)	DIS- SOLVED FLUO- RIDE (F) (MG/L)	DIS- SOLVED SILICA (SIO2) (MG/L)	DIS- SOLVED SOLIDS (SUM OF CONSTI- TUENTS) (MG/L)	DIS- SOLVED SOLIDS (TONS PER AC-FT)	DIS- SOLVED NITRATE (N) (MG/L)	TOTAL PHOS- PHORUS (P) (MG/L)
MAY 18...	--	--	--	--	--	--	--	--	--
SEP 10...	57	2200	16	1.2	16	3090	4.20	.43	.04

YELLOWSTONE RIVER BASIN

440930108522200 GREYBULL RIVER AT MEETEETSE, WY (LAT 44 09 30 LONG 108 52 22)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
MAY 20...	190	--	--	--	--	--	--	--	--	--
SEP 14...	403	150	27	37	15	27	.9	1.9	150	0

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
MAY 20...	--	--	--	--	--	--	--	--	--
SEP 14...	123	85	2.3	.3	11	252	.34	.07	.02

442451108325100 BENCH CANAL NEAR FENTON, WY (LAT 44 24 51 LONG 108 32 51)

DATE	SPECIFIC CONDUCTANCE (MICROMHOS)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)
SEP 14...	471	180	32	39	19	35	1.1	4.2	180	0

DATE	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED NITRATE (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)
SEP 14...	148	100	2.1	.3	13	302	.41	.07	.01

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
YELLOWSTONE RIVER BASIN

445655107030700 HIDDEN WATER CREEK POND NO 1 NEAR MONARCH, WY (LAT 44 56 55 LONG 107 03 07)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
FEB												
18...	1000	160	6.7	.0	--	1.2	--	66	6	18	5.1	2.7
MAY												
18...	1500	320	7.3	18.0	3	8.4	2.5	120	0	31	11	4.9
18...	1505	--	--	--	--	--	--	--	--	--	--	--
18...	1510	--	--	--	--	--	--	--	--	--	--	--
AUG												
04...	1030	225	8.5	19.0	5	4.3	--	110	0	22	14	5.5
04...	1035	--	--	--	--	--	--	--	--	--	--	--
04...	1040	--	--	--	--	--	--	--	--	--	--	--

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
FEB												
18...	.1	9.2	73	0	6[illegible]	13	3.1	.2	5.3	93	.13	.02
MAY												
18...	.2	10	154	--	126	11	2.7	.3	2.3	150	.20	.31
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
04...	.2	8.8	143	0	117	14	.8	.4	.4	137	.19	.00
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
FEB												
18...	--	--	--	--	--	1.3	--	1.3	.28	--	1100	17
MAY												
18...	.05	.05	.01	1.1	.99	1.1	1.0	1.1	.04	.04	1700	2.7
18...	--	--	--	--	--	--	--	--	--	--	15000	--
18...	--	--	--	--	--	--	--	--	--	--	3000	--
AUG												
04...	.02	.00	.00	1.4	1.2	1.4	1.2	1.4	.10	.03	10000	.4
04...	--	--	--	--	--	--	--	--	--	--	10000	--
04...	--	--	--	--	--	--	--	--	--	--	37000	--

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	DISSOLVED ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)
FEB												
18...	1000	840	60	0	0	3	3	0	10	--	10	1
MAY												
18...	1500	80	30	0	0	1	1	0	20	80	<10	0
AUG												
04...	1030	120	0	--	--	3	3	0	0	90	<10	0

DATE	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
FEB												
18...	0	0	<10	3	760	150	<100	1	10	0	170	160
MAY												
18...	0	0	20	2	420	350	<100	3	10	10	50	50
AUG												
04...	0	0	<10	1	1200	150	<100	1	10	10	120	20

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
FEB											
18...	.0	.0	2	1	<50	3	0	0	3.8	20	10
MAY											
18...	.6	.2	1	0	<50	4	0	0	.0	90	0
AUG											
04...	.3	.0	0	0	<50	2	0	0	--	10	0

YELLOWSTONE RIVER BASIN

445655107030700 HIDDEN WATER CREEK POND NO 1 NEAR MONARCH, WY (LAT 44 56 55 LONG 107 03 07)

PHYTOPLANKTON ANALYSES

DATE	FEB 18.76	MAY 18.76	MAY 18.76	MAY 18.76
TIME	1000	1500	1505	1510
TOTAL CELLS/ML	1100	1700	15000	3000
DIVERSITY: DIVISION	1.6	0.3	0.1	0.8
.CLASS	1.6	0.6	0.1	1.1
..ORDER	1.8	0.6	0.1	1.1
...FAMILY	1.8	0.6	0.1	1.1
....GENUS	1.9	1.4	0.7	1.8

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	73	7	--	-	--	-	--	-
....OOCYSTIS	73	7	--	-	--	-	--	-
..OEDOGONIALES								
...OEDOGONIACEAE								
....OEDOGONIUM	110	10	--	-	--	-	--	-
..VOLVOCALES								
...VOLVOCACEAE								
....GONIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	--	-	--	-	27	1
....MELOSIRA	--	-	--	-	--	-	--	-
..PENNALES								
...FRAGILARIACEAE								
....FRAGILARIA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	--	-	*	0	110	4
...NITZSCHIACEAE								
....NITZSCHIA	92	9	71	5	--	-	--	-
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...OCHROMONADACEAE								
....DINOBRYON	--	-	930#	55	13000#	83	1400#	47
....OCHROMONAS	--	-	620#	37	2500#	17	760#	26
CYANOPHYTA (BLUE-GREEN ALGAE)								
.MYXOPHYCEAE								
..OSCILLATORIALES								
...NOSTOCACEAE								
....ANABAENA	700#	62	--	-	--	-	680#	23
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOMONODACEAE								
....CRYPTOMONAS	--	-	95	6	--	-	27	1
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	73	7	--	-	*	0	--	-
....TRACHELOMONAS	--	-	--	-	77	1	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	18	2	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

445655107030700 HIDDEN WATER CREEK POND NO 1 NEAR MONARCH, WY (LAT 44 56 55 LONG 107 03 07)

PHYTOPLANKTON ANALYSES

DATE	AUG 4,76	AUG 4,76	AUG 4,76
TIME	1030	1035	1040
TOTAL CELLS/ML	10000	10000	37000
DIVERSITY: DIVISION	1.3	0.1	0.9
.CLASS	1.3	0.1	0.9
..ORDER	1.3	0.1	0.9
...FAMILY	1.3	0.1	1.0
....GENUS	1.4	0.2	1.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-
..OEDOGONIALES						
...OEDOGONIACEAE						
....OEDOGONIUM	--	-	--	-	--	-
..VOLVOCALES						
...VOLVOCACEAE						
....GONIUM	790	8	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	--	-	--	-	--	-
....MELOSIRA	*	0	--	-	--	-
..PENNALES						
...FRAGILARIACEAE						
....FRAGILARIA	3100#	32	--	-	23000#	63
...NAVICULACEAE						
....NAVICULA	130	2	110	2	510	2
...NITZSCHIACEAE						
....NITZSCHIA	--	-	--	-	--	-
.CHRYSOPHYCEAE						
..CHRYSOMONADALES						
...OCHROMONADACEAE						
....DINOBRYON	--	-	--	-	--	-
....OCHROMONAS	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.MYXOPHYCEAE						
..OSCILLATORIALES						
...NOSTOCACEAE						
....ANABAENA	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.CRYPTOPHYCEAE						
..CRYPTOMONIDALES						
...CRYPTOMONODACEAE						
....CRYPTOMONAS	--	-	--	-	--	-
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	66	1	110	2	*	0
....TRACHELOMONAS	5900#	59	10000#	98	14000#	37
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..GYMNODINIALES						
...GYMNODINIACEAE						
....GYMNODINIUM	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

YELLOWSTONE RIVER BASIN

445655107030700 HIDDEN WATER CREEK POND NO 1 NEAR MONARCH, WY (LAT 44 56 55 LONG 107 03 07)

PERIPHYTON ANALYSES

FEB. 18, 1976
1000 HOURS

IDENTIFICATION OF PERIPHYTON

ORGANISM NAME	COMMON NAME
CHLOROPHYTA	GREEN ALGAE
.CHLOROPHYCEAE	
..OEDOGONIALES	
...OEDOGONIACEAE	
& ....OEDOGONIUM	
..ULOTRICHALES	
...MICROSPORACEAE	
....MICROSPORA	
CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...CYMBELLACEAE	
....RHOPALODIA	
...FRAGILARIACEAE	
& ....FRAGILARIA	
....SYNEDRA	
...NAVICULACEAE	NAVICULOID
....MASTOGLOIA	
....NAVICULA	
CYANOPHYTA	BLUE-GREEN ALGAE
.MYXOPHYCEAE	
..OSCILLATORIALES	FILAMENTOUS
...NOSTOCACEAE	
....ANABAENA	
EUGLENOPHYTA	EUGLENOIDS
.EUGLENOPHYCEAE	
..EUGLENALES	
...EUGLENACEAE	
....EUGLENA	
....TRACHELOMONAS	

NOTE: & - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

445655107030700 HIDDEN WATER CREEK POND NO 1 NEAR MONARCH, WY (LAT 44 56 55 LONG 107 03 07)

PERIPHYTON ANALYSES

MAY 18, 1976
1500 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME_	_COMMON__NAME_
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...OCCYSTACEAE	
O	....TETRAEDRON	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....CLOSTERIUM	
O	....COSMARIUM	
	...ZYGNEMATACEAE	
O	....ZYGNEMA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...CYMBELLACEAE	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
O	....SYNEDRA	
	...NAVICULACEAE	NAVICULOID
O	....CALONEIS	
O	....NAVICULA	
O	....PINNULARIA	
E	....STAURONEIS	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE
	..CHRYSOMONADALES	
	...OCHROMONADACEAE	
O	....DINOBRYON	
	.XANTHOPHYCEAE	YELLOW-GREEN ALGAE
	..HETEROTRICHALES	
	...TRIBONEMATACEAE	
O	....TRIBONEMA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHROOCOCCACEAE	
O	....ANACYSTIS	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
E	....ANABAENA	
	...OSCILLATORIACEAE	
O	....ARTHROSPIRA	
E	....OSCILLATORIA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....TRACHELOMONAS	
	PYRRHOPHYTA	
	.DINOPHYCEAE	DINOFLAGELLATES
	..PERIDINIALES	
	...PERIDINIACEAE	
O	....PERIDINIUM	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

445655107030700 HIDDEN WATER CREEK POND NO 1 NEAR MONARCH, WY (LAT 44 56 55 LONG 107 03 07)

PERIPHYTON ANALYSES

AUG. 4, 1976
1030 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...BOTRYOCOCCACEAE	
O	....BOTRYOCOCCUS	
	...CHARACIACEAE	
O	....CHARACIUM	
	...OOCYSTACEAE	
O	....NEPHROCYTIUM	
O	....OOCYSTIS	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....BULBOCHAETE	
O	....OEDOCLADIUM	
O	....OEDOGONIUM	
	..TETRASPORALES	
	...TETRASPORACEAE	
O	....TETRASPORA	
	..VOLVOCALES	
	...CHLAMYDOMONADACEAE	
O	....CHLAMYDOMONAS	
	...PHACOTACEAE	
O	....PHACOTUS	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....CLOSTERIUM	
O	....COSMARIUM	
O	....STAURASTRUM	
	...ZYGNEMATACEAE	
E	....MOUGEOTIA	
O	....SPIROGYRA	
O	....ZYGNEMA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....CYMBELLA	
E	....EPITHEMIA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
E	....FRAGILARIA	
O	....SYNEDRA	
	...NAVICULACEAE	NAVICULOID
O	....NAVICULA	
O	....STAURONEIS	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
E	....ANABAENA	
	...OSCILLATORIACEAE	
O	....LYNGBYA	
O	....OSCILLATORIA	
	...RIVULARIACEAE	
O	....GLOEOTRICHIA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....EUGLENA	
O	....TRACHELOMONAS	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

445655107030700 HIDDEN WATER CREEK POND NO 1 NEAR MONARCH, WY (LAT 44 56 55 LONG 107 03 07)

BENTHIC INVERTEBRATE ANALYSES

DATE	FEB 18,76
TIME	1000
TOTAL COUNT	1092
DIVERSITY: PHYLUM	0.0
.CLASS	1.0
..ORDER	1.2
...FAMILY	1.2
....GENUS	1.2
....GENUS-INSECTA	0.1

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.CRUSTACEA	
..AMPHIPODA	
...TALITRIDAE	
....HYALLELA	
.....G.AZTECA	1
..CYCLOPOIDA	
...CYCLOPIDAE	
....CYCLOPS	30
..PODOCOPA	
...UNKNOWN FAMILY	
....UNKNOWN GENUS	600
.INSECTA	
..COLEOPTERA	
...DYTISCIDAE	
....DYTISCUS	1
....OREODYTES	3
..DIPTERA	
...CHAOBORIDAE	
....CHAOBORUS	454
..EPHEMEROPTERA	
...BAETIDAE	
....CENTROPTILUM	1
..ODONATA	
...AESHNIDAE	
....AESHNA	2

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
YELLOWSTONE RIVER BASIN

445613107030600 HIDDEN WATER CREEK POND NO. 2 NEAR MONARCH, WY (LAT 44 56 13 LONG 107 03 06)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
FEB												
18...	0900	3600	7.5	.0	--	12.1	--	2100	1800	280	340	180
MAY												
18...	1630	4200	8.2	17.0	15	9.6	3.7	2400	2000	300	390	210
18...	1635	--	--	--	--	--	--	--	--	--	--	--
18...	1640	--	--	--	--	--	--	--	--	--	--	--
AUG												
04...	0900	2760	8.4	19.0	20	6.3	--	2300	2100	280	400	200
04...	0905	--	--	--	--	--	--	--	--	--	--	--
04...	0910	--	--	--	--	--	--	--	--	--	--	--

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
FEB												
18...	1.7	20	391	0	321	2100	18	.4	18	3150	4.28	.61
MAY												
18...	1.9	25	426	--	349	2300	19	.4	11	3470	4.72	.30
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
04...	1.8	25	280	0	230	2600	19	.4	7.7	3670	4.99	.11
04...	--	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
FEB												
18...	--	.04	--	1.3	--	1.3	--	1.9	.03	--	15000	.7
MAY												
18...	.04	.04	.04	1.5	.96	1.5	1.0	1.5	.02	.02	6600	.3
18...	--	--	--	--	--	--	--	--	--	--	7100	--
18...	--	--	--	--	--	--	--	--	--	--	5400	--
AUG												
04...	.16	.00	.06	1.2	1.3	1.2	1.4	1.3	.08	.01	150000	.2
04...	--	--	--	--	--	--	--	--	--	--	120000	--
04...	--	--	--	--	--	--	--	--	--	--	78000	--

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	DISSOLVED ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)
FEB												
18...	0900	80	0	0	0	0	0	10	10	--	10	1
MAY												
18...	1630	1200	20	0	0	1	1	0	0	740	10	1
AUG												
04...	0900	450	40	--	--	5	5	10	0	770	10	0

DATE	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
FEB												
18...	0	0	10	1	110	40	<100	2	190	190	390	290
MAY												
18...	10	10	40	2	2000	60	100	3	250	220	340	30
AUG												
04...	0	0	<10	2	580	40	100	1	270	250	230	260

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
FEB											
18...	.0	.0	2	1	50	13	0	0	1.9	180	20
MAY											
18...	.3	.0	1	0	100	13	1	1	.0	90	0
AUG											
04...	.0	.0	1	1	<50	13	1	1	--	30	10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
YELLOWSTONE RIVER BASIN

445613107030600 HIDDEN WATER CREEK POND NO. 2 NEAR MONARCH, WY (LAT 44 56 13 LONG 107 03 06)

PHYTOPLANKTON ANALYSES

DATE	FEB 18,76	MAY 18,76	MAY 18,76	MAY 18,76
TIME	0900	1630	1635	1640
TOTAL CELLS/ML	15000	6600	7100	5400
DIVERSITY: DIVISION	0.5	1.4	1.2	1.8
.CLASS	0.5	1.7	1.9	2.2
..ORDER	0.5	1.8	2.2	2.5
...FAMILY	0.5	2.2	2.7	2.7
....GENUS	0.5	3.3	2.9	3.2

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	800	13	--	-	740	14
....CHODATELLA	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	1100#	16	--	-	540	11
....KIRCHNERIELLA	--	-	1100#	18	--	-	67	2
....OOCYSTIS	--	-	600	10	--	-	130	3
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	430	7	--	-	67	2
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	--	-	*	0	690	10	--	-
....CHLAMYDOMONAS	--	-	--	-	690	10	--	-
...VOLVOCACEAE								
....GONIUM	--	-	*	0	--	-	130	3
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..PENNALES								
...NAVICULACEAE								
....ENTOMONEIS	--	-	100	2	230	4	100	2
..CENTRALES								
...CHAETOCERACEAE								
....CHAETOCEROS	--	-	*	0	--	-	--	-
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	330	5	690	10	270	6
..PENNALES								
...DIATOMACEAE								
....DIATOMA	--	-	--	-	230	4	--	-
...FRAGILARIACEAE								
....SYNEDRA	*	0	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	--	-	130	2	460	7	340	7
....NEIDIUM	--	-	*	0	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	50	1	--	-	270	6
...TABELLARIACEAE								
....TABELLARIA	--	-	--	-	--	-	*	0
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...CHROMULINACEAE								
....CHRYSOCOCCUS	--	-	1100#	16	2500#	36	1300#	25
...OCHROMONADACEAE								
....OCHROMONAS	--	-	--	-	920	13	--	-
....UROGLENOPSIS	13000#	90	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.MYXOPHYCEAE								
..OSCILLATORIALES								
...NOSTOCACEAE								
....ANABAENA	--	-	500	8	--	-	--	-
....APHANIZOMENON	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	*	0	--	-	1100#	21
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOMONODACEAE								
....CRYPTOMONAS	--	-	--	-	230	4	--	-
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	280	5	230	4	240	5
....PHACUS	--	-	*	0	--	-	67	2
....TRACHELOMONAS	--	-	50	1	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	1500	11	--	-	--	-	--	-
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	230	4	--	-
...PERIDINIACEAE								
....PERIDINIUM	--	-	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
YELLOWSTONE RIVER BASIN
445613107030600 HIDDEN WATER CREEK POND NO. 2 NEAR MONARCH, WY (LAT 44 56 13 LONG 107 03 06)
PHYTOPLANKTON ANALYSES

DATE	AUG 4,76	AUG 4,76	AUG 4,76
TIME	0900	0905	0910
TOTAL CELLS/ML	150000	120000	70000
DIVERSITY: DIVISION	0.3	0.8	1.1
.CLASS	0.3	0.8	1.1
..ORDER	0.3	0.8	1.1
...FAMILY	0.3	0.8	1.1
....GENUS	0.3	0.8	1.4

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	26000#	21	32000#	46
....CHODATELLA	--	-	--	-	570	1
....DICTYOSPHAERIUM	--	-	--	-	2300	4
....KIRCHNERIELLA	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-
...SCENEDESMACEAE						
....SCENEDESMUS	--	-	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CARTERIA	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	--	-	--	-
...VOLVOCACEAE						
....GONIUM	--	-	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..PENNALES						
...NAVICULACEAE						
....ENTOMONEIS	--	-	--	-	--	-
..CENTRALES						
...CHAETOCERACEAE						
....CHAETOCEROS	--	-	--	-	--	-
...COSCINODISCACEAE						
....CYCLOTELLA	5200	4	--	-	--	-
..PENNALES						
...DIATOMACEAE						
....DIATOMA	--	-	--	-	--	-
...FRAGILARIACEAE						
....SYNEDRA	--	-	--	-	--	-
...NAVICULACEAE						
....NAVICULA	--	-	--	-	--	-
....NEIDIUM	--	-	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	--	-	--	-	--	-
...TABELLARIACEAE						
....TABELLARIA	--	-	--	-	--	-
.CHRYSOPHYCEAE						
..CHRYSOMONADALES						
...CHROMULINACEAE						
....CHRYSOCOCCUS	--	-	--	-	--	-
...OCHROMONADACEAE						
....OCHROMONAS	--	-	--	-	--	-
....UROGLENOPSIS	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.MYXOPHYCEAE						
..OSCILLATORIALES						
...NOSTOCACEAE						
....ANABAENA	*	0	--	-	--	-
....APHANIZOMENON	150000#	97	--	-	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	98000#	79	34000#	49
EUGLENOPHYTA (EUGLENOIDS)						
.CRYPTOPHYCEAE						
..CRYPTOMONIDALES						
...CRYPTOMONODACEAE						
....CRYPTOMONAS	--	-	--	-	--	-
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	*	0	--	-	--	-
....PHACUS	--	-	--	-	1700	3
....TRACHELOMONAS	920	1	*	0	--	-
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..GYMNODINIALES						
...GYMNODINIACEAE						
....GYMNODINIUM	--	-	--	-	--	-
..PERIDINIALES						
...GLENODINIACEAE						
....GLENODINIUM	--	-	--	-	--	-
...PERIDINIACEAE						
....PERIDINIUM	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

445613107030600 HIDDEN WATER CREEK POND NO. 2 NEAR MONARCH, WY (LAT 44 56 13 LONG 107 03 06)

PERIPHYTON ANALYSES

FEB. 18, 1976
0900 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
&	....RHIZOCLONIUM	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
	....OEDOGONIUM	
	..ULOTRICHALES	
	...MICROSPORACEAE	
	....MICROSPORA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...NAVICULACEAE	NAVICULOID
	....ENTOMONEIS	
	...ACHNANTHACEAE	
	....ACHNANTHES	
	....COCCONEIS	
	...CYMBELLACEAE	
	....CYMBELLA	
	....RHOPALODIA	
	...DIATOMACEAE	
	....DIATOMA	
	...FRAGILARIACEAE	
&	....SYNEDRA	
	...GOMPHONEMATACEAE	
	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
	....AMPHIPLEURA	
	....MASTOGLOIA	
	....NAVICULA	
	....PINNULARIA	
	...NITZSCHIACEAE	
	....NITZSCHIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
&	....LYNGBYA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
	....TRACHELOMONAS	

NOTE: & - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

445613107030600 HIDDEN WATER CREEK POND NO. 2 NEAR MONARCH, WY (LAT 44 56 13 LONG 107 03 06)

PERIPHYTON ANALYSES

MAY 18, 1976
1630 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME	_COMMON__NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..ULOTRICHALES	
	...CHAETOPHORACEAE	
O	....STIGEOCLONIUM	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....COSMARIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
	..PENNALES	PENNATE
	...CYMBELLACEAE	
O	....CYMBELLA	
O	....RHOPALODIA	
	...DIATOMACEAE	
E	....DIATOMA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPRORA	
O	....CALONEIS	
O	....GYROSIGMA	
O	....MASTOGLOIA	
E	....NAVICULA	
O	....PINNULARIA	
	...NITZSCHIACEAE	
O	....HANTZSCHIA	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE
	..CHRYSOMONADALES	
	...CHROMULINACEAE	
O	....CHRYSOCOCCUS	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....EUGLENA	
	PYRRHOPHYTA	
	.DINOPHYCEAE	DINOFLAGELLATES
	..PERIDINIALES	
	...PERIDINIACEAE	
O	....PERIDINIUM	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

YELLOWSTONE RIVER BASIN

445613107030600 HIDDEN WATER CREEK POND NO. 2 NEAR MONARCH, WY (LAT 44 56 13 LONG 107 03 06)

PERIPHYTON ANALYSES

AUG. 4, 1976
0900 HOURS

IDENTIFICATION OF PERIPHYTUN

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  _ORGANISM__NAME________________   _COMMON__NAME_______

  CHLOROPHYTA                        GREEN ALGAE
  .CHAROPHYCEAE                      STONEWORTS
  ..CHAHALES
  ...CHARACEAE
E ....CHARA
  CHRYSOPHYTA
  .BACILLARIOPHYCEAE                 DIATOMS
  ..CENTRALES                        CENTRIC
  ...COSCINODISCACEAE
O ....CYCLOTELLA
  ..PENNALES                         PENNATE
  ...ACHNANTHACEAE
O ....COCCONEIS
  ...CYMBELLACEAE
O ....CYMBELLA
O ....RHOPALODIA
  ...FRAGILARIACEAE
O ....SYNEDRA
  ...NAVICULACEAE                    NAVICULOID
O ....AMPHIPRORA
O ....ANOMOEONEIS
O ....CALONEIS
O ....DIPLONEIS
O ....GYROSIGMA
E ....MASTOGLOIA
O ....NAVICULA
O ....PINNULARIA
  ...NITZSCHIACEAE
O ....NITZSCHIA
  ...SURIRELLACEAE
O ....SURIRELLA
  ...ACHNANTHACEAE
O ....RHOICOSPHENIA
  CYANOPHYTA                         BLUE-GREEN ALGAE
  .MYXOPHYCEAE
  ..OSCILLATORIALES                  FILAMENTOUS
  ...OSCILLATORIACEAE
O ....OSCILLATORIA
```

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

BENTHIC INVERTEBRATE ANALYSES

```
DATE                                    FEB 18,76
TIME                                      0900

TOTAL COUNT                                 33

DIVERSITY: PHYLUM                          0.2
           .CLASS                          1.2
           ..ORDER                         1.7
           ...FAMILY                       2.1
           ....GENUS                       2.5
           ....GENUS-INSECTA               2.3

 ORGANISM                                 COUNT

ARTHROPODA (ARTHROPODS)
.CRUSTACEA
..AMPHIPODA
...TALITRIDAE
....HYALLELA
.....G.AZTECA
                                            14
..CYCLOPOIDA
...CYCLOPIDAE
....CYCLOPS                                  1
.INSECTA
..DIPTERA
...CERATOPOGONIDAE
....UNKNOWN GENUS                            2
...CHAOBORIDAE
....CHAOBORUS                                1
...CHIRONOMIDAE
....ENDOCHIRONOMUS                           2
....PARATANYTARSUS                           7
....TRISSOCLADIUS                            2
..ODONATA
...COENAGRIONIDAE
....ISCHNURA                                 3

MOLLUSCA (MOLLUSCS)
.GASTROPODA
..BASOMMATOPHORA
...PHYSIDAE
....PHYSA                                    1
```

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
YELLOWSTONE RIVER BASIN

445625107033700 HIDDEN WATER CREEK POND NO. 3 NEAR MONARCH, WY (LAT 44 56 25 LONG 107 03 37)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
FEB												
18...	0730	1650	8.1	.0	--	14.2	--	740	560	97	120	100
MAY												
19...	1100	2600	8.3	15.0	10	8.7	2.2	1100	850	140	180	160
19...	1105	--	--	--	--	--	--	--	--	--	--	--
19...	1110	--	--	--	--	--	--	--	--	--	--	--
AUG												
03...	1500	2220	8.4	26.0	9	7.2	--	1100	970	130	200	180
03...	1505	--	--	--	--	--	--	--	--	--	--	--
03...	1510	2220	8.4	26.0	--	--	--	--	--	--	--	--

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
FEB												
18...	1.6	21	221	0	181	780	14	.6	6.0	1250	1.70	.06
MAY												
19...	2.1	25	289	--	237	1100	22	.7	2.7	1770	2.41	.18
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
03...	2.3	28	213	4	181	1400	21	.8	1.3	2070	2.82	.01
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
FEB												
18...	--	.04	--	.74	--	.78	--	.84	.02	--	320	.4
MAY												
19...	.02	.05	.04	.58	.71	.63	.75	.81	.01	.02	780	1.2
19...	--	--	--	--	--	--	--	--	--	--	2700	--
19...	--	--	--	--	--	--	--	--	--	--	1400	--
AUG												
03...	.04	.00	.01	.63	.77	.63	.78	.64	.02	.00	5900	.2
03...	--	--	--	--	--	--	--	--	--	--	3000	--
03...	--	--	--	--	--	--	--	-	--	--	2100	--

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	DISSOLVED ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)
FEB												
18...	0730	50	0	0	0	1	1	10	10	--	10	1
MAY												
19...	1100	200	20	0	0	0	0	0	0	380	<10	1
AUG												
03...	1500	250	10	--	--	2	1	0	0	420	<10	0

DATE	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
FEB												
18...	0	14	<10	2	140	0	<100	2	140	130	40	10
MAY												
19...	0	10	20	4	230	20	100	5	220	190	60	30
AUG												
03...	0	0	<10	2	160	10	<100	0	240	240	50	30

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
FEB											
18...	.0	.0	2	1	50	4	1	1	1.2	20	0
MAY											
19...	.1	.0	4	2	50	10	1	1	.0	90	10
AUG											
03...	.3	.2	3	3	50	4	1	1	--	10	0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

445625107033700 HIDDEN WATER CREEK POND NO. 3 NEAR MONARCH, WY (LAT 44 56 25 LONG 107 03 37)

PHYTOPLANKTON ANALYSES

DATE	FEB 18,76	MAY 19,76	MAY 19,76	MAY 19,76	AUG 3,76	AUG 3,76
TIME	0730	1100	1105	1110	1500	1510
TOTAL CELLS/ML	320	780	2700	1400	5900	2100
DIVERSITY: DIVISION	0.5	1.1	0.8	1.2	1.1	1.3
.CLASS	0.5	1.1	0.8	1.7	1.1	1.3
..ORDER	0.5	1.1	1.1	1.8	1.7	1.3
...FAMILY	0.5	1.4	1.6	2.3	1.7	1.3
....GENUS	0.5	1.8	2.1	2.3	2.0	1.3

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...OOCYSTACEAE												
....ANKISTRODESMUS	36	12	390#	51	1300#	49	450#	33	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	880#	15	--	-
....KIRCHNERIELLA	--	-	78	11	330	13	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	750	13	--	-
...SCENEDESMACEAE												
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-	45	3
....SCENEDESMUS	--	-	39	6	110	5	120	9	--	-	91	5
....TETRASTRUM	--	-	--	-	220	9	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	--	-	21	2	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	--	-	380	15	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....COCCONEIS	--	-	--	-	--	-	21	2	--	-	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	20	3	--	-	--	-	--	-	--	-
...NAVICULACEAE												
....NAVICULA	--	-	--	-	--	-	--	-	31	1	23	2
...NITZSCHIACEAE												
....DENTICULA	--	-	--	-	--	-	21	2	--	-	--	-
....NITZSCHIA	--	-	230#	31	330	13	230#	17	--	-	--	-
.CHRYSOPHYCEAE												
..CHRYSOMONADALES												
...CHROMULINACEAE												
....CHRYSOCOCCUS	--	-	--	-	--	-	470#	34	--	-	--	-
...OCHROMONADACEAE												
....DINOBRYON	--	-	--	-	--	-	21	2	--	-	--	-
....OCHROMONAS	--	-	--	-	--	-	--	-	63	2	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.MYXOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	--	-	--	-	3000#	51	1500#	74
..OSCILLATORIALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	1100#	19	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....EUGLENA	--	-	*	0	--	-	--	-	--	-	--	-
....TRACHELOMONAS	290#	89	20	3	--	-	21	2	31	1	290	15
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..GYMNODINIALES												
...GYMNODINIACEAE												
....GYMNODINIUM	--	-	--	-	--	-	21	2	--	-	--	-
..PERIDINIALES												
...PERIDINIACEAE												
....PERIDINIUM	--	-	--	-	--	-	--	-	63	2	91	5

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
YELLOWSTONE RIVER BASIN

445625107033700 HIDDEN WATER CREEK POND NO. 3 NEAR MONARCH, WY (LAT 44 56 25 LONG 107 03 37)

PHYTOPLANKTON ANALYSES

AUG. 3, 1976
1505 HOURS

IDENTIFICATION OF PHYTOPLANKTON

3,000 CELLS/ML

_ORGANISM__NAME	_COMMON__NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..CENTRALES	CENTRIC		
...COSCINODISCACEAE			
....CYCLOTELLA		130	4
..PENNALES	PENNATE		
...NAVICULACEAE	NAVICULOID		
....NAVICULA		42	1
.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
..CHRYSOMONADALES			
...OCHROMONADACEAE			
....OCHROMONAS		85	3
CYANOPHYTA	BLUE-GREEN ALGAE		
.MYXOPHYCEAE			
..CHROOCOCCALES	COCCOID		
...CHROOCOCCACEAE			
D ....ANACYSTIS		2,200	71
..OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORIACEAE			
....OSCILLATORIA		420	14
PYRRHOPHYTA	FIRE ALGAE		
.DINOPHYCEAE	DINOFLAGELLATES		
..PERIDINIALES			
...PERIDINIACEAE			
....PERIDINIUM		210	7

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
PHYL/DIV 0.769
CLASS 0.845
ORDER 1.436
FAMILY 1.436
GENERA 1.436

PERIPHYTON ANALYSES

FEB. 18, 1976
0730 HOURS

IDENTIFICATION OF PERIPHYTON

_ORGANISM__NAME	_COMMON__NAME
CHLOROPHYTA	GREEN ALGAE
.CHLOROPHYCEAE	
..CLADOPHORALES	
...CLADOPHORACEAE	
& ....RHIZOCLONIUM	
..OEDOGONIALES	
...OEDOGONIACEAE	
....OEDOGONIUM	
CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...NAVICULACEAE	NAVICULOID
....ENTOMONEIS	
...ACHNANTHACEAE	
& ....ACHNANTHES	
...CYMBELLACEAE	
....CYMBELLA	
....EPITHEMIA	
....RHOPALODIA	
...FRAGILARIACEAE	
& ....SYNEDRA	
...NAVICULACEAE	NAVICULOID
....CALONEIS	
....GYROSIGMA	
....MASTOGLOIA	
....NAVICULA	
...NITZSCHIACEAE	
....NITZSCHIA	
CYANOPHYTA	BLUE-GREEN ALGAE
.MYXOPHYCEAE	
..OSCILLATORIALES	FILAMENTOUS
...NOSTOCACEAE	
....AULOSIRA	
...OSCILLATORIACEAE	
& ....LYNGBYA	
...RIVULARIACEAE	
....AMPHITHRIX	

NOTE: & - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

445625107033700 HIDDEN WATER CREEK POND NO. 3 NEAR MONARCH, WY (LAT 44 56 25 LONG 107 03 37)

PERIPHYTON ANALYSES

MAY 19, 1976
1100 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...NAVICULACEAE	NAVICULOID
O	....MASTOGLOIA	
O	....NAVICULA	
O	....PINNULARIA	
	...NITZSCHIACEAE	
O	....HANTZSCHIA	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....CYMATOPLEURA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....EUGLENA	

AUG. 3, 1976
1500 HOURS
IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...OOCYSTACEAE	
O	....OOCYSTIS	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....CLOSTERIUM	
O	....COSMARIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
E	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....GYROSIGMA	
O	....NAVICULA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHROOCOCCACEAE	
O	....AGMENELLUM	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
E	....LYNGBYA	
O	....SPIRULINA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....PHACUS	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

445732107032700 HIDDEN WATER CREEK POND NO. 4 NEAR MONARCH, WY (LAT 44 57 32 LONG 107 03 27)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	DISSOLVED OXYGEN (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
FEB 19...	0800	680	7.8	.0	9.8	17	.8

PHYTOPLANKTON ANALYSES

FEB. 19, 1976
0800 HOURS

IDENTIFICATION OF PHYTOPLANKTON

17 CELLS/ML

_ORGANISM__NAME	_COMMON__NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...ACHNANTHACEAE			
D ....ACHNANTHES			
D ....COCCONEIS		4	25
...FRAGILARIACEAE		4	25
D ....SYNEDRA			
		8	50

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
ANALYSIS METHOD: SEDWICK-RAFTER CHAMBER, 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
FAMILY 1.000
GENERA 1.500

PERIPHYTON ANALYSES

FEB. 19, 1976
0800 HOURS

IDENTIFICATION OF PERIPHYTON

-ORGANISM__NAME	_COMMON__NAME
CHRYSOPHYTA	
.BACILLARIOPHYCEAE	DIATOMS
..PENNALES	PENNATE
...FRAGILARIACEAE	
E ....SYNEDRA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
YELLOWSTONE RIVER BASIN

445857107034000 ASH CREEK POND NEAR MONARCH, WY (LAT 44 58 47 LONG 107 03 40)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
FEB												
17...	1530	700	6.9	3.0	--	7.3	--	330	190	56	46	30
MAY												
19...	0900	930	8.7	17.0	7	10.0	2.2	440	280	77	59	39
19...	0905	--	--	--	--	--	--	--	--	--	--	--
19...	0910	--	--	--	--	--	--	--	--	--	--	--
AUG												
03...	1230	855	9.4	25.0	2	7.3	--	380	280	55	58	42
03...	1235	--	--	--	--	--	--	--	--	--	--	--
03...	1240	--	--	--	--	--	--	--	--	--	--	--

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
FEB												
17...	.7	7.7	165	0	135	250	13	.4	8.8	493	.67	.41
MAY												
19...	.8	8.9	186	--	153	320	16	.4	.8	613	.83	.32
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
03...	.9	10	79	18	95	340	21	.5	.4	584	.79	.01
03...	--	--	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL /ALGAL GROWTH BOTTLE TEST (MG/L)
FEB												
17...	--	.15	--	1.2	--	1.3	--	1.7	.08	--	430	.5
MAY												
19...	.07	.05	.16	.68	.94	.73	1.1	1.0	.01	.02	260	.4
19...	--	--	--	--	--	--	--	--	--	--	310	--
19...	--	--	--	--	--	--	--	--	--	--	58	--
AUG												
03...	.03	.00	.02	.73	.74	.73	.76	.74	.02	.00	530	.3
03...	--	--	--	--	--	--	--	--	--	--	540	--
03...	--	--	--	--	--	--	--	--	--	--	110	--

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	DISSOLVED ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)
FEB												
17...	1530	960	10	0	0	1	0	0	0	--	<10	1
MAY												
19...	0900	550	80	0	0	1	1	0	10	190	<10	0
AUG												
03...	1230	80	10	--	--	3	3	0	0	230	<10	0

DATE	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
FEB												
17...	0	0	<10	4	910	20	<100	2	70	60	130	110
MAY												
19...	0	0	10	7	640	20	<100	6	90	80	30	30
AUG												
03...	0	0	<10	3	20	30	<100	1	100	90	10	10

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
FEB											
17...	.0	.0	2	0	50	11	2	2	1.8	30	10
MAY											
19...	.1	.0	1	1	<50	11	2	2	.0	90	0
AUG											
03...	1.4	.0	0	1	<50	6	1	1	--	10	0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
YELLOWSTONE RIVER BASIN

445857107034000 ASH CREEK POND NEAR MONARCH, WY (LAT 44 58 47 LONG 107 03 40)
PHYTOPLANKTON ANALYSES

DATE	FEB 17,76		MAY 19,76		MAY 19,76		MAY 19,76	
TIME	1530		0900		0905		0910	
TOTAL CELLS/ML	430		260		310		58	
DIVERSITY: DIVISION	0.0		1.0		1.4		0.6	
.CLASS	0.0		1.3		1.4		0.6	
..ORDER	0.0		1.3		1.4		0.7	
...FAMILY	1.2		2.0		2.6		1.6	
....GENUS	1.2		2.0		2.7		1.6	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	--	-	4	7
..ZYGNEMATALES								
...ZYGNEMATACEAE								
....MOUGEOTIA	--	-	--	-	--	-	4	7
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	46	11	--	-	4	2	8	14
...CYMBELLACEAE								
....CYMBELLA	--	-	11	5	--	-	--	-
...DIATOMACEAE								
....DIATOMA	300#	69	--	-	9	3	--	-
...FRAGILARIACEAE								
....FRAGILARIA	91#	22	--	-	49#	16	--	-
...MERIDIONACEAE								
....MERIDION	--	-	--	-	--	-	4	7
...NAVICULACEAE								
....GYROSIGMA	--	-	--	-	4	2	--	-
....NAVICULA	--	-	11	5	27	9	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	65#	26	40	14	39#	67
.CHRYSOPHYCEAE								
..CHRYSOMONADALES								
...CHROMULINACEAE								
....CHRYSOCOCCUS	--	-	22	9	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.MYXOPHYCEAE								
..OSCILLATORIALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	31	11	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.CRYPTOPHYCEAE								
..CRYPTOMONIDALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	130#	51	100#	34	--	-
...CRYPTOMONODACEAE								
....CRYPTOMONAS	--	-	22	9	40	14	--	-

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

AUG. 3, 1976
1230 HOURS
IDENTIFICATION OF PHYTOPLANKTON
530 CELLS/ML

_ORGANISM__NAME	_COMMON__NAME	CELLS/ML	PER_CENT
CHRYSOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		21	4
....COCCONEIS		42	8
...NAVICULACEAE	NAVICULOID		
....NAVICULA		28	5
...NITZSCHIACEAE			
....NITZSCHIA		42	8
CYANOPHYTA	BLUE-GREEN ALGAE		
.MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
...NOSTOCACEAE			
....ANABAENA		56	11
EUGLENOPHYTA	EUGLENOIDS		
.CRYPTOPHYCEAE	CRYPTOMONADS		
..CRYPTOMONIDALES			
...CRYPTOCHRYSIDACEAE			
D ....CHROOMONAS		310	58
...CRYPTOMONODACEAE			
....CRYPTOMONAS		35	7

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
PHYL/DIV 1.250
CLASS 1.250
ORDER 1.250
FAMILY 1.934
GENERA 2.043

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

445857107034000 ASH CREEK POND NEAR MONARCH, WY (LAT 44 58 47 LONG 107 03 40)

PHYTOPLANKTON ANALYSES

AUG. 3, 1976
1235 HOURS

IDENTIFICATION OF PHYTOPLANKTON

540 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHLOROPHYTA	GREEN ALGAE		
.CHLOROPHYCEAE			
..VOLVOCALES			
...PHACOTACEAE			
....PHACOTUS		4	1
CHRYSOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		4	1
....COCCONEIS		34	6
.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
..CHRYSOMONADALES			
...OCHROMONADACEAE			
D ....OCHROMONAS		100	19
CYANOPHYTA	BLUE-GREEN ALGAE		
.MYXOPHYCEAE			
..OSCILLATORIALES	FILAMENTOUS		
...OSCILLATORIACEAE			
D ....LYNGBYA		310	57
EUGLENOPHYTA	EUGLENOIDS		
.CRYPTOPHYCEAE	CRYPTOMONADS		
..CRYPTOMONIDALES			
...CRYPTOCHRYSIDACEAE			
....CHROOMONAS		68	13
...CRYPTOMONODACEAE			
....CRYPTOMONAS		17	3

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
PHYL/DIV 1.444
CLASS 1.666
ORDER 1.666
FAMILY 1.780
GENERA 1.816

AUG. 3, 1976
1240 HOURS

IDENTIFICATION OF PHYTOPLANKTON

110 CELLS/ML

ORGANISM NAME	COMMON NAME	CELLS/ML	PER CENT
CHRYSOPHYTA			
.BACILLARIOPHYCEAE	DIATOMS		
..PENNALES	PENNATE		
...ACHNANTHACEAE			
....ACHNANTHES		13	12
D ....COCCONEIS		34	32
...CYMBELLACEAE			
....AMPHORA		3	3
...NITZSCHIACEAE			
....NITZSCHIA		6	6
EUGLENOPHYTA	EUGLENOIDS		
.CRYPTOPHYCEAE	CRYPTOMONADS		
..CRYPTOMONIDALES			
...CRYPTOCHRYSIDACEAE			
D ....CHROOMONAS		44	41
...CRYPTOMONODACEAE			
....CRYPTOMONAS		6	6

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
PHYL/DIV 0.998
CLASS 0.998
ORDER 0.998
FAMILY 1.678
GENERA 2.048

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

445857107034000 ASH CREEK POND NEAR MONARCH, WY (LAT 44 58 47 LONG 107 03 40)

PERIPHYTON ANALYSES

MAY 19, 1976
0900 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....BULBOCHAETE	
O	....OEDOGONIUM	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....CLOSTERIUM	
O	....COSMARIUM	
	...ZYGNEMATACEAE	
O	....MOUGEOTIA	
O	....SPIROGYRA	
O	....ZYGNEMA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
E	....ACHNANTHES	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....CYMBELLA	
O	....RHOPALODIA	
	...DIATOMACEAE	
E	....DIATOMA	
	...FRAGILARIACEAE	
E	....FRAGILARIA	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....GYROSIGMA	
O	....NAVICULA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHROOCOCCACEAE	
O	....AGMENELLUM	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....EUGLENA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

445857107034000 ASH CREEK POND NEAR MONARCH, WY (LAT 44 58 47 LONG 107 03 40)

PERIPHYTON ANALYSES

AUG. 3, 1976
1230 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHAROPHYCEAE	STONEWORTS
	..CHARALES	
	...CHARACEAE	
O	....CHARA	
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...BOTRYOCOCCACEAE	
O	....BOTRYOCOCCUS	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
E	....OEDOGONIUM	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....COSMARIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
E	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
E	....SYNEDRA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPLEURA	
O	....DIPLONEIS	
O	....MASTOGLOIA	
O	....NAVICULA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...SURIRELLACEAE	
O	....CYMATOPLEURA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHROOCOCCACEAE	
O	....AGMENELLUM	
O	....ANACYSTIS	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
E	....ANABAENA	
	...OSCILLATORIACEAE	
O	....LYNGBYA	
O	....OSCILLATORIA	
O	....SPIRULINA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

445857107034000 ASH CREEK POND NEAR MONARCH, WY (LAT 44 58 47 LONG 107 03 40)

BENTHIC INVERTEBRATE ANALYSES

DATE	FEB 17.76
TIME	1530
TOTAL COUNT	180
DIVERSITY: PHYLUM	0.0
.CLASS	0.9
..ORDER	2.5
...FAMILY	2.9
....GENUS	2.9
....GENUS-INSECTA	2.1

ORGANISM	COUNT
ARTHROPODA (ARTHROPODS)	
.CRUSTACEA	
..AMPHIPODA	
...TALITRIDAE	
....HYALLELA	
.....G.AZTECA	24
..CALANOIDA	
...DIAPTOMIDAE	
....DIAPTOMUS	3
..CLADOCERA	
...CHYDORIDAE	
....ALONA	51
...DAPHNIDAE	
....DAPHNIA	18
..CYCLOPOIDA	
...CYCLOPIDAE	
....CYCLOPS	28
.INSECTA	
..COLEOPTERA	
...DYTISCIDAE	
....OREODYTES	1
..DIPTERA	
...CHIRONOMIDAE	
....METRIOCNEMUS	6
....PARATANYTARSUS	1
....PROCLADIUS	2
..EPHEMEROPTERA	
...BAETIDAE	
....CENTROPTILUM	26
...CAENIDAE	
....CAENIS	1
..ODONATA	
...COENAGRIONIDAE	
....ISCHNURA	16
..TRICHOPTERA	
...LEPTOCERIDAE	
....LEPTOCELLA	1
...PHRYGANEIDAE	
....PHRYGANEA	2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

434129106203300 POWDER RIVER ABOVE SALT CREEK, NEAR SUSSEX, WY (LAT 43 41 29 LONG 106 20 33)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
AUG 12...	1300	E35	2100	8.2	25.0	30	9.2	730	520	190

E Estimate.

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
AUG 12...	62	190	3.1	6.9	250	0	205	780	77	.4

DATE	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)
AUG 12...	9.6	1440	1.96	136	.02	.00	.00	.00	.20	.00

DATE	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
AUG 12...	.20	.00	.22	.08	.01	3000	.0	286	27

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
AUG 12...	1300	1300	10	1	1	0	0	230	10	1	10

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
AUG 12...	0	10	1	1900	20	100	6	80	80	60	30

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
AUG 12...	.0	.0	2	2	<50	3	2	2	20	10

YELLOWSTONE RIVER BASIN

434129106203300 POWDER RIVER ABOVE SALT CREEK, NEAR SUSSEX, WY (LAT 43 41 29 LONG 106 20 33)

PHYTOPLANKTON ANALYSES

DATE	AUG 12,76
TIME	1300
TOTAL CELLS/ML	3000
DIVERSITY: DIVISION	1.0
.CLASS	1.0
..ORDER	1.2
...FAMILY	1.2
....GENUS	1.2

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	1600#	52
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	110	4
..PENNALES		
...NITZSCHIACEAE		
....NITZSCHIA	1400#	45

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

PERIPHYTON ANALYSES

AUG. 12, 1976
1300 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
	..PENNALES	PENNATE
	...FRAGILARIACEAE	
O	....FRAGILARIA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
E	....NAVICULA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
YELLOWSTONE RIVER BASIN

442005106452300 CLEAR CREEK BYPASS NEAR BUFFALO, WY (LAT 44 20 05 LONG 106 45 23)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
AUG 30...	1330	4.2	64	7.2	15.0	1	9.6	1.5	28	2

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
AUG 30...	7.6	2.3	2.6	.2	.7	32	0	26	3.5	.7

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)
AUG 30...	.1	8.8	42	.06	.48	.06	.00	.00	.06	.10

DATE	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
AUG 30...	.10	.10	.16	.16	.01	.00	6400	1.5	24	.27

DATE	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
AUG 30...	6	11	24	44	56	65	82	98	100

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
AUG 30...	1330	120	0	0	0	10	0	20	<10	0	0

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
AUG 30...	0	<10	1	120	30	<100	0	0	0	10	0

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
AUG 30...	.0	.0	0	0	<50	2	1	1	10	0

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
YELLOWSTONE RIVER BASIN
442005106452300 CLEAR CREEK BYPASS NEAR BUFFALO, WY (LAT 44 20 05 LONG 106 45 23)

PHYTOPLANKTON ANALYSES

DATE	AUG 30.76
TIME	1330
TOTAL CELLS/ML	6400
DIVERSITY: DIVISION	1.1
.CLASS	1.1
..ORDER	1.4
...FAMILY	1.5
....GENUS	1.5

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....DICTYOSPHAERIUM	650	11
..VOLVOCALES		
...VOLVOCACEAE		
....EUDORINA	810	13
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	81	2
..PENNALES		
...ACHNANTHACEAE		
....COCCONEIS	180	3
...GOMPHONEMATACEAE		
....GOMPHONEMA	81	2
...NAVICULACEAE		
....NAVICULA	41	1
...NITZSCHIACEAE		
....HANTZSCHIA	41	1
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	4500#	71

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM. MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

PERIPHYTON ANALYSES

AUG. 30. 1976
1330 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME_______________	_COMMON__NAME_______
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....CLOSTERIUM	
O	....COSMARIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
E	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....FRUSTULIA	
E	....NAVICULA	
O	....PINNULARIA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....LYNGBYA	
O	....SPIRULINA	

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING. 200-X MICROSCOPE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06323105 LAKE DE SMET OUTFLOW TO PINEY CREEK, NEAR KEARNEY, WY (LAT 44 30 59 LONG 106 46 49)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)
SEP 01...	1630	86	820	8.8	19.0	1	7.9	3.1	350	180

DATE	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)
SEP 01...	76	39	60	1.4	7.8	209	0	171	300	4.5

DATE	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)
SEP 01...	.2	3.0	595	.81	138	.25	.29	.00	.00	.52

DATE	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)
SEP 01...	.33	.52	.33	.77	.04	.01	90	10	3700

06323105 LAKE DE SMET OUTFLOW TO PINEY CREEK, NEAR KEARNEY, WY (LAT 44 30 59 LONG 106 46 49)

PHYTOPLANKTON ANALYSES

SEP. 1, 1976
1630 HOURS

IDENTIFICATION OF PHYTOPLANKTON

3,700 CELLS/ML

	_ORGANISM__NAME	_COMMON__NAME	CELLS/ML	PER_CENT
	CHLOROPHYTA	GREEN ALGAE		
	.CHLOROPHYCEAE			
	..CHLOROCOCCALES			
	...OCCYSTACEAE			
	....ANKISTRODESMUS		73	2
L	....OOCYSTIS			0
	...SCENEDESMACEAE			
L	....ACTINASTRUM			0
	..VOLVOCALES			
	...PHACOTACEAE			
	....PHACOTUS		24	1
	CHRYSOPHYTA			
	.BACILLARIOPHYCEAE	DIATOMS		
	..CENTRALES	CENTRIC		
	...COSCINODISCACEAE			
D	....MELOSIRA		780	21
	....STEPHANODISCUS		320	8
	..PENNALES	PENNATE		
	...ACHNANTHACEAE			
	....ACHNANTHES		24	1
	....COCCONEIS		73	2
	...FRAGILARIACEAE			
	....ASTERIONELLA		24	1
	....FRAGILARIA		150	4
	...ACHNANTHACEAE			
	....RHOICOSPHENIA		24	1
	CYANOPHYTA	BLUE-GREEN ALGAE		
	.MYXOPHYCEAE			
	..CHROOCOCCALES	COCCOID		
	...CHROOCOCCACEAE			
	....GOMPHOSPHAERIA		24	1
	..OSCILLATORIALES	FILAMENTOUS		
	...NOSTOCACEAE			
	....ANABAENA		24	1
D	....APHANIZOMENON		2,100	57
	EUGLENOPHYTA	EUGLENOIDS		
	.CRYPTOPHYCEAE	CRYPTOMONADS		
	..CRYPTOMONIDALES			
	...CRYPTOMONODACEAE			
	....CRYPTOMONAS		49	1
	PYRRHOPHYTA			
	.DINOPHYCEAE	DINOFLAGELLATES		
	..PERIDINIALES			
	...CERATIACEAE			
	....CERATIUM		24	1

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
PHYL/DIV 1.252
CLASS 1.252
ORDER 1.602
FAMILY 1.702
GENERA 2.057

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06323105 LAKE DE SMET OUTFLOW TO PINEY CREEK, NEAR KEARNEY, WY (LAT 44 30 59 LONG 106 46 49)

PERIPHYTON ANALYSES

SEP. 1, 1976
1630 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...CHARACIACEAE	
O	....SCHROEDERIA	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
E	....CLADOPHORA	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....COSMARIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
O	....MELOSIRA	
O	....STEPHANODISCUS	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
E	....COCCONEIS	
	...CYMBELLACEAE	
O	....CYMBELLA	
	...FRAGILARIACEAE	
O	....FRAGILARIA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....DIPLONEIS	
O	....NAVICULA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...SURIRELLACEAE	
O	....CYMATOPLEURA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHAMAESIPHONACEAE	
E	....CHAMAESIPHON	
	...CHROOCOCCACEAE	
O	....GOMPHOSPHAERIA	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....LYNGBYA	
O	....OSCILLATORIA	
	PYRRHOPHYTA	
	.DINOPHYCEAE	DINOFLAGELLATES
	..PERIDINIALES	
	...CERATIACEAE	
O	....CERATIUM	

NOTE: E - ESTIMATED DOMINANAT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
YELLOWSTONE RIVER BASIN

06323125 PINEY CREEK BELOW SENFF DRAW, NEAR UCROSS, WY (LAT 44 33 39 LONG 42 58 00)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
AUG 31...	1330	72	740	8.7	19.0	1	10.2	1.9	310	150	66	35

DATE	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
AUG 31...	48	1.2	6.5	177	6	155	240	3.6	.2	3.3	496

DATE	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)
AUG 31...	.67	96.4	.01	.00	.00	.00	.34	.62	.34	.62	.35

DATE	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 128 MM
AUG 31...	.02	.01	4700	1.6	8	1.6	10	14	44	89	100

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
AUG 31...	1330	90	0	0	0	10	0	70	10	1	0

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
AUG 31...	0	<10	0	80	20	<100	0	20	20	20	0

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
AUG 31...	.0	.0	1	1	<50	2	1	1	0	0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06323125 PINEY CREEK BELOW SENFF DRAW, NEAR UCROSS, WY (LAT 44 33 39 LONG 42 58 00)

PHYTOPLANKTON ANALYSES

DATE	AUG 31,76
TIME	1330
TOTAL CELLS/ML	4700
DIVERSITY: DIVISION	1.4
.CLASS	1.4
..ORDER	1.5
...FAMILY	2.3
....GENUS	2.4

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...MICRACTINIACEAE		
....GOLENKINIA	1900#	40
...OOCYSTACEAE		
....DICTYOSPHAERIUM	270	6
....QUADRIGULA	66	2
..ZYGNEMATALES		
...DESMIDIACEAE		
....COSMARIUM	33	1
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	120	3
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	*	0
....COCCONEIS	270	6
...CYMBELLACEAE		
....EPITHEMIA	*	0
...GOMPHONEMATACEAE		
....GOMPHONEMA	33	1
...NAVICULACEAE		
....NAVICULA	*	0
...NITZSCHIACEAE		
....NITZSCHIA	*	0
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..OSCILLATORIALES		
...NOSTOCACEAE		
....ANABAENA	910#	20
...OSCILLATORIACEAE		
....OSCILLATORIA	1100#	23
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....TRACHELOMONAS	*	0

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06323125 PINEY CREEK BELOW SENFF DRAW, NEAR UCROSS, WY (LAT 44 33 39 LONG 42 58 00)

PERIPHYTON ANALYSES

AUG. 31, 1976
1330 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME_______________	_COMMON__NAME_______
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...OCCYSTACEAE	
O	....ANKISTRODESMUS	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
E	....CLADOPHORA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
O	....MELOSIRA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
E	....COCCONEIS	
	...CYMBELLACEAE	
O	....CYMBELLA	
O	....EPITHEMIA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....CALONEIS	
O	....NAVICULA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHAMAESIPHONACEAE	
E	....CHAMAESIPHON	
	...CHROOCOCCACEAE	
O	....AGMENELLUM	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
	...OSCILLATORIACEAE	
E	....LYNGBYA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....EUGLENA	
O	....PHACUS	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324830 RAWHIDE CREEK AT U S HIGHWAYS 14 AND 16, NEAR GILLETTE, WY (LAT 44 25 30 LONG 105 33 50)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
APR												
29...	1030	E.60	5400	--	6.5	3	--	--	--	--	--	--
MAY												
05...	1115	1.3	6000	8.4	13.5	3	6.7	1.6	2900	2400	400	470
05...	1200	--	--	--	13.5	--	--	--	--	--	--	--
AUG												
17...	0840	.00	--	--	--	--	--	--	--	--	--	--
18...	1130	6.7	1940	8.4	20.3	80	--	--	490	220	120	47

DATE	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
APR												
29...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
05...	650	5.2	27	638	--	523	3800	12	.6	6.5	5680	7.72
05...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
17...	--	--	--	--	--	--	--	--	--	--	--	--
18...	260	5.1	16	334	0	274	780	12	.6	8.0	1410	1.92

DATE	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)
APR												
29...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
05...	19.9	.00	.00	.01	.00	1.1	1.2	1.1	1.2	1.1	.03	.00
05...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
17...	--	--	--	--	--	--	--	--	--	--	--	--
18...	25.5	.00	--	.00	--	1.1	--	1.1	--	1.1	.09	--

DATE	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
APR											
29...	--	--	10	.02	--	--	--	--	--	--	--
MAY											
05...	1800	.2	--	--	--	--	--	--	--	--	--
05...	--	--	21	--	--	--	--	--	--	--	--
AUG											
17...	--	--	--	--	65	75	85	92	92	97	100
18...	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324830 RAWHIDE CREEK AT U S HIGHWAYS 14 AND 16, NEAR GILLETTE, WY (LAT 44 25 30 LONG 105 33 50)

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ALUMI-NUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL ANTI-MONY (SB) (UG/L)	DIS-SOLVED ANTI-MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BARIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)
MAY											
05...	1115	60	0	--	--	--	1	1	--	0	0
AUG											
A17...	0840	--	--	2200	--	--	--	--	50	--	--
18...	1130	2000	0	--	1	1	2	2	--	0	0

DATE	TOTAL BERYL-LIUM IN BOTTOM MA-TERIAL (UG/G)	DIS-SOLVED BORON (B) (UG/L)	TOTAL BORON IN BOTTOM MA-TERIAL (UG/G)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CADMIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL CHRO-MIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL COBALT IN BOTTOM MA-TERIAL (UG/G)	TOTAL COPPER (CU) (UG/L)
MAY											
05...	--	240	--	<10	0	--	20	20	--	--	10
AUG											
17...	1	--	<1	--	--	1	--	--	5	5	--
18...	--	180	--	<10	0	--	0	0	--	--	10

DATE	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL COPPER IN BOTTOM MA-TERIAL (UG/G)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON IN BOTTOM MA-TERIAL (UG/G)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LEAD IN BOTTOM MA-TERIAL (UG/G)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)
MAY											
05...	1	--	310	40	--	100	0	--	190	210	100
AUG											
17...	--	13	--	--	4900	--	--	6	--	--	--
18...	1	--	1900	30	--	<100	0	--	50	40	170

DATE	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MANGA-NESE IN BOTTOM MA-TERIAL (UG/G)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL MOLYB-DENUM IN BOT-TOM MA-TERIAL (UG/G)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL NICKEL IN BOTTOM MA-TERIAL (UG/G)
MAY										
05...	120	--	.0	.0	2	2	--	100	4	--
AUG										
17...	--	120	--	--	--	--	<1	--	--	16
18...	20	--	.2	.0	1	2	--	<50	6	--

DATE	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL SILVER IN BOTTOM MA-TERIAL (UG/G)	TOTAL STRON-TIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL TITA-NIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL VANA-DIUM IN BOTTOM MA-TERIAL (UG/G)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC IN BOTTOM MA-TERIAL (UG/G)
MAY										
05...	0	0	--	--	--	--	.0	10	0	--
AUG										
17...	--	--	<0	110	10	16	--	--	--	30
18...	1	1	--	--	--	--	1.6	20	10	--

A Trace elements determined by spectrographic analysis.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324830 RAWHIDE CREEK AT U S HIGHWAYS 14 AND 16, NEAR GILLETTE, WY (LAT 44 25 30 LONG 105 33 50)

PHYTOPLANKTON ANALYSES

MAY 5, 1976
1115 HOURS

IDENTIFICATION OF PHYTOPLANKTON

1,800 CELLS/ML

	_ORGANISM__NAME	_COMMON__NAME	CELLS/ML	PER_CENT
	CHLOROPHYTA	GREEN ALGAE		
	.CHLOROPHYCEAE			
	..CHLOROCOCCALES			
	...OOCYSTACEAE			
	....ANKISTRODESMUS		88	5
	CHRYSOPHYTA			
	.BACILLARIOPHYCEAE	DIATOMS		
	..CENTRALES	CENTRIC		
	...COSCINODISCACEAE			
L	....CYCLOTELLA			0
	..PENNALES	PENNATE		
	...NAVICULACEAE	NAVICULOID		
D	....NAVICULA		370	21
	....NEIDIUM		22	1
	...NITZSCHIACEAE			
D	....NITZSCHIA		460	26
	CYANOPHYTA	BLUE-GREEN ALGAE		
	.MYXOPHYCEAE			
	..OSCILLATORIALES	FILAMENTOUS		
	...NOSTOCACEAE			
D	....ANABAENA		750	42
	EUGLENOPHYTA	EUGLENOIDS		
	.EUGLENOPHYCEAE			
	..EUGLENALES			
	...EUGLENACEAE			
	....TRACHELOMONAS		88	5

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%
L - LESS THEN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER , 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:

PHYL/DIV 1.462
CLASS 1.462
ORDER 1.462
FAMILY 1.941
GENERA 2.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324830 RAWHIDE CREEK AT U S HIGHWAYS 14 AND 16, NEAR GILLETTE, WY (LAT 44 25 30 LONG 105 33 50)

PERIPHYTON ANALYSES

MAY 5, 1976
1115 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...OCCYSTACEAE	
O	....ANKISTRODESMUS	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
O	....CLADOPHORA	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	..ULOTRICHALES	
	...CHAETOPHORACEAE	
O	....STIGEOCLONIUM	
	...MICROSPORACEAE	
E	....MICROSPORA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...FRAGILARIACEAE	
O	....FRAGILARIA	
E	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPRORA	
O	....CALONEIS	
O	....GYROSIGMA	
O	....NAVICULA	
O	....PINNULARIA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	.XANTHOPHYCEAE	YELLOW-GREEN ALGAE
	..HETEROTRICHALES	
	...TRIBONEMATACEAE	
E	....TRIBONEMA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHROOCOCCACEAE	
O	....AGMENELLUM	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR GILLETTE, WY (LAT 44 29 40 LONG 106 28 00)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)
MAY 05...	1300	--	2200	8.1	15.0	25	10.2	3.0	1100	840	230	120
AUG 17...	0915	9.7	3020	7.6	19.5	1	5.5	--	1800	1600	420	190
17...	0920	9.7	3020	7.6	19.5	--	--	--	--	--	--	--
17...	0930	--	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
MAY 05...	120	1.6	32	284	0	233	1100	6.3	.7	8.3	--	1760
AUG 17...	150	1.5	54	296	0	243	1900	8.6	.7	13		2890
17...	--	--	56	--	--	--	--	--	--	--	3000	--
17...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)
MAY 05...	2.39	--	--	.01	.01	.05	.00	1.2	.76	1.2	.76
AUG 17...	3.93	75.7		.42	.41	.02	.00	.85	.83	.87	.83
17...	--	--	2	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--

DATE	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM
MAY 05...	1.2	.08	.00	2900	.4	1120	--	--	--	--	--
AUG 17...	1.3	.07	.04	22000	.4	112	2.9	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	91	97	99	100

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	DISSOLVED ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	DISSOLVED BARIUM (BA) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	TOTAL BISMUTH (BI) (UG/L)
MAY 05...	1300	900	0	--	--	1	1	--	--	0	10	--
AUG 17...	0915	80	0	1	0	2	2	--	--	10	0	--
A17...	0920	<50	<50	--	--	--	--	30	30	<20	<20	<21

DATE	DISSOLVED BISMUTH (BI) (UG/L)	TOTAL BORON (B) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL GALLIUM (GA) (UG/L)
MAY 05...	--	--	780	<10	0	0	0	--	--	10	1	--
AUG 17...	--	--	2200	<10	0	0	10	--	--	<10	2	--
A17...	<20	2100	1400	10	2	<21	<20	<21	<20	<10	10	<20

A Trace elements determined by spectrographic analysis.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR GILLETTE, WY (LAT 44 29 40 LONG 106 28 00)

DATE	DISSOLVED GALLIUM (GA) (UG/L)	TOTAL GERMANIUM (GE) (UG/L)	DISSOLVED GERMANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
MAY											
05...	--	--	--	1200	30	<100	0	80	90	170	160
AUG											
17...	--	--	--	140	40	100	0	190	180	40	30
A17...	<20	<50	<50	290	100	<31	<29	--	180	90	60

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	TOTAL STRONTIUM (SR) (UG/L)
MAY											
05...	.0	.0	5	7	<50	2	0	0	--	--	--
AUG											
17...	.0	.1	13	12	<50	4	7	7	--	--	--
17...	--	--	51	39	<21	<20	--	--	<10	<10	2400

DATE	DISSOLVED STRONTIUM (SR) (UG/L)	TOTAL TIN (SN) (UG/L)	DISSOLVED TIN (SN) (UG/L)	TOTAL TITANIUM (TI) (UG/L)	DISSOLVED TITANIUM (TI) (UG/L)	TOTAL VANADIUM (V) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL ZIRCONIUM (ZR) (UG/L)	DISSOLVED ZIRCONIUM (ZR) (UG/L)
MAY											
05...	--	--	--	--	--	--	.1	0	0	--	--
AUG											
17...	--	--	--	--	--	--	14	20	10	--	--
A17...	2500	<31	<29	<10	<10	<41	<39	--	20	<40	<40

DATE	TIME	TOTAL ALUMINUM IN BOTTOM MATERIAL (UG/G)	TOTAL BARIUM IN BOTTOM MATERIAL (UG/G)	TOTAL BERYLLIUM IN BOTTOM MATERIAL (UG/G)	TOTAL BORON IN BOTTOM MATERIAL (UG/G)	TOTAL CADMIUM IN BOTTOM MATERIAL (UG/G)	TOTAL CHROMIUM IN BOTTOM MATERIAL (UG/G)	TOTAL COBALT IN BOTTOM MATERIAL (UG/G)	TOTAL COPPER IN BOTTOM MATERIAL (UG/G)	TOTAL IRON IN BOTTOM MATERIAL (UG/G)
AUG										
A17...	0920	480	33	0	5	1	1	2	5	920

DATE	TOTAL LEAD IN BOTTOM MATERIAL (UG/G)	TOTAL MANGANESE IN BOTTOM MATERIAL (UG/G)	TOTAL MOLYBDENUM IN BOTTOM MATERIAL (UG/G)	[illegible] BOTTOM MATERIAL (UG/G)	TOTAL SILVER IN BOTTOM MATERIAL (UG/G)	TOTAL STRONTIUM IN BOTTOM MATERIAL (UG/G)	TOTAL TITANIUM IN BOTTOM MATERIAL (UG/G)	TOTAL VANADIUM IN BOTTOM MATERIAL (UG/G)	TOTAL ZINC IN BOTTOM MATERIAL (UG/G)
AUG									
A17...	6	49	<0	6	<0	9	3	6.2	27

DATE	TIME	DISSOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUSPENDED GROSS ALPHA AS U-NAT. (UG/L)	DISSOLVED GROSS BETA AS CS-137 (PC/L)	SUSPENDED GROSS BETA AS CS-137 (PC/L)	DISSOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUSPENDED GROSS BETA AS SR90 /Y90 (PC/L)	DISSOLVED RA-226 (RADON METHOD) (PC/L)	DISSOLVED NATURAL URANIUM (U) (UG/L)
AUG									
17...	0920	<38	<.4	33	.7	28	.7	.16	8.9

A Trace elements determined by spectrographic analysis.

06324890 LITTLE POWDER RIVER BELOW CORRAL CREEK, NEAR GILLETTE, WY (LAT 44 29 40 LONG 106 28 00)

PHYTOPLANKTON ANALYSES

DATE	AUG 17,76	
TIME	0915	
TOTAL CELLS/ML	22000	
DIVERSITY: DIVISION	0.5	
.CLASS	0.5	
..ORDER	0.9	
...FAMILY	0.9	
....GENUS	0.9	
ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	290	2
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	18000#	85
..PENNALES		
...NITZSCHIACEAE		
....HANTZSCHIA	140	1
....NITZSCHIA	870	4
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	580	3
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	1400	7

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

PERIPHYTON ANALYSES

AUG. 17, 1976
0915 HOURS
IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME_______________	_COMMON__NAME_______
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...OOCYSTACEAE	
O	....ANKISTRODESMUS	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	..ULOTRICHALES	
	...CHAETOPHORACEAE	
O	....STIGEOCLONIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
O	....MELOSIRA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
E	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPLEURA	
O	....DIPLONEIS	
O	....GYROSIGMA	
E	....NAVICULA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....CYMATOPLEURA	
O	....SURIRELLA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHROOCOCCACEAE	
O	....AGMENELLUM	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
E	....LYNGBYA	
O	....OSCILLATORIA	
O	....SPIRULINA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324912 LITTLE POWDER RIVER ABOVE COTTONWOOD CREEK, NEAR WESTON, WY (LAT 44 35 35 LONG 105 18 50)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
MAY											
06...	1300	--	2600	8.9	12.5	30	8.8	2.4	950	630	200
AUG											
02...	1230	--	--	--	--	--	--	--	--	--	--
17...	1230	5.3	3500	8.3	21.5	40	8.0	--	1800	1600	410
17...	1235	5.2	3500	8.2	21.5	--	--	--	--	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
MAY										
06...	110	230	3.2	24	398	--	326	1100	8.2	.6
AUG										
02...	--	--	--	--	--	--	--	--	--	--
17...	190	150	1.5	50	297	0	244	1900	13	.6
17...	--	--	--	51	--	--	--	--	--	--

DATE	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)
MAY										
06...	6.5	--	1880	2.56	--	--	.01	.00	.02	.02
AUG										
02...	--	--	--	--	--	--	--	--	--	--
17...	15	2600	2880	3.92	41.2	66	.06	.01	.00	.00
17...	--	2600	--	--	--	66	--	--	--	--

DATE	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)
MAY										
06...	.94	.85	.96	.87	.97	.04	.01	4000	.4	--
AUG										
02...	--	--	--	--	--	--	--	--	--	--
17...	.73	.24	.73	.24	.79	.09	.03	1900	.4	170
17...	--	--	--	--	--	--	--	--	--	--

DATE	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
MAY										
06...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	--	14	32	79	85	87	90	93	97	100
17...	2.4	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	DISSOLVED ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	DISSOLVED BARIUM (BA) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	TOTAL BISMUTH (BI) (UG/L)
MAY												
06...	1300	1100	0	--	--	1	0	--	--	10	0	--
AUG												
17...	1230	1800	10	5	5	1	1	--	--	0	0	--
A17...	1235	2100	70	--	--	--	--	90	60	<20	<20	<21

A Trace elements determined by spectrographic analysis.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324912 LITTLE POWDER RIVER ABOVE COTTONWOOD CREEK, NEAR WESTON, WY (LAT 44 35 35 LONG 105 18 50)

DATE	DIS-SOLVED BISMUTH (BI) (UG/L)	TOTAL BORON (B) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL GALLIUM (GA) (UG/L)
MAY 06...	--	--	490	<10	0	0	10	--	--	20	2	--
AUG 17...	--	--	1900	<10	0	10	0	--	--	10	1	--
A17...	<19	4900	2000	<10	0	<21	<19	<21	<19	<10	<10	<20

DATE	DIS-SOLVED GALLIUM (GA) (UG/L)	TOTAL GER-MANIUM (GE) (UG/L)	DIS-SOLVED GER-MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
MAY 06...	--	--	--	1100	20	<100	2	70	60	100	20
AUG 17...	--	--	--	1600	30	100	4	190	180	40	20
A17...	<20	<50	<50	1700	50	<31	<29	--	180	50	<20

DATE	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	TOTAL STRON-TIUM (SR) (UG/L)
MAY 06...	--	.0	3	4	<50	5	1	1	--	--	--
AUG 17...	.0	.0	12	11	<50	4	7	7	--	--	--
17...	--	--	<21	<19	56	48	--	--	<10	<10	1300

DATE	DIS-SOLVED STRON-TIUM (SR) (UG/L)	TOTAL TIN (SN) (UG/L)	DIS-SOLVED TIN (SN) (UG/L)	TOTAL TI-TANIUM (TI) (UG/L)	DIS-SOLVED TI-TANIUM (TI) (UG/L)	TOTAL VANA-DIUM (V) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZIR-CONIUM (ZR) (UG/L)	DIS-SOLVED ZIR-CONIUM (ZR) (UG/L)
MAY 06...	--	--	--	--	--	--	.0	20	0	--	--
AUG 17...	--	--	--	--	--	--	2.9	20	10	--	--
A17...	1500	<31	<29	180	<20	<42	<39	--	10	<40	<40

DATE	TIME	TOTAL ALUMI-NUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BARIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BERYL-LIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BORON IN BOTTOM MA-TERIAL (UG/G)	TOTAL CADMIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL CHRO-MIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL COBALT IN BOTTOM MA-TERIAL (UG/G)	TOTAL COPPER IN BOTTOM MA-TERIAL (UG/G)	TOTAL IRON IN BOTTOM MA-TERIAL (UG/G)
AUG A17...	1235	1200	57	0	4	1	1	5	<0	4200

DATE	TOTAL LEAD IN BOTTOM MA-TERIAL (UG/G)	TOTAL MANGA-NESE IN BOTTOM MA-TERIAL (UG/G)	TOTAL MOLYB-DENUM IN BOT-TOM MA-TERIAL (UG/G)	TOTAL NICKEL IN BOTTOM MA-TERIAL (UG/G)	TOTAL SILVER IN BOTTOM MA-TERIAL (UG/G)	TOTAL STRON-TIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL TITA-NIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL VANA-DIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL ZINC IN BOTTOM MA-TERIAL (UG/G)
AUG A17...	8	36	<0	14	<0	36	4	7.8	17

DATE	TIME	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (PLAN-CHET COUNT) (PC/L)	DIS-SOLVED NATURAL URANIUM (U) (UG/L)
AUG 17...	1235	<33	3.7	37	4.2	29	3.4	.6	8.1

A Trace elements determined by spectrographic analysis.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324912 LITTLE POWDER RIVER ABOVE COTTONWOOD CREEK, NEAR WESTON, WY (LAT 44 35 35 LONG 105 18 50)

PHYTOPLANKTON ANALYSES

DATE	MAY 6,76
TIME	1300
TOTAL CELLS/ML	4000
DIVERSITY: DIVISION	0.3
.CLASS	0.8
..ORDER	1.1
...FAMILY	1.3
....GENUS	1.3

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	230	6
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	230	6
..PENNALES		
...NAVICULACEAE		
....NAVICULA	110	3
...NITZSCHIACEAE		
....NITZSCHIA	3000#	75
...SURIRELLACEAE		
....SURIRELLA	*	0
.CHRYSOPHYCEAE		
..CHRYSOMONADALES		
...CHROMULINACEAE		
....CHRYSOCOCCUS	460	12
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	*	0
PYRRHOPHYTA (FIRE ALGAE)		
.DINOPHYCEAE		
..PERIDINIALES		
...PERIDINIACEAE		
....PERIDINIUM	*	0

DATE	AUG 17,76
TIME	1230
TOTAL CELLS/ML	1900
DIVERSITY: DIVISION	0.0
.CLASS	0.0
..ORDER	0.9
...FAMILY	0.9
....GENUS	0.9

ORGANISM	CELLS /ML	PER- CENT
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	1200#	67
..PENNALES		
...NAVICULACEAE		
....GYROSIGMA	*	0
...NITZSCHIACEAE		
....NITZSCHIA	620#	34

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324912 LITTLE POWDER RIVER ABOVE COTTONWOOD CREEK, NEAR WESTON, WY (LAT 44 35 35 LONG 105 18 50)

PERIPHYTON ANALYSES

MAY 6, 1976
1300 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME	_COMMON__NAME
	CHLOROPHYTA	
	.CHLOROPHYCEAE	GREEN ALGAE
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...CYMBELLACEAE	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPLEURA	
O	....CALONEIS	
O	....GYROSIGMA	
O	....NAVICULA	
O	....PINNULARIA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	.XANTHOPHYCEAE	YELLOW-GREEN ALGAE
	..HETEROTRICHALES	
	...TRIBONEMATACEAE	
O	....TRIBONEMA	
	CYANOPHYTA	
	.MYXOPHYCEAE	BLUE-GREEN ALGAE
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

AUG. 17, 1976
1230 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME	_COMMON__NAME
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...CYMBELLACEAE	
O	....CYMBELLA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPLEURA	
O	....AMPHIPRORA	
O	....CALONEIS	
O	....GYROSIGMA	
O	....NAVICULA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	CYANOPHYTA	
	.MYXOPHYCEAE	BLUE-GREEN ALGAE
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
E	....LYNGBYA	
O	....OSCILLATORIA	

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
SAMPLING METHOD: PLASTIC SLIDES, TIMED SAMPLING INTERVAL
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324918 COTTONWOOD CREEK AT MOUTH, NEAR WESTON, WY (LAT 44 36 30 LONG 105 17 40)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
MAY 05...	1515	4000	8.6	16.5	30	10.2	3.4	750	200	120	110	770
AUG 17...	1500	--	--	--	--	--	--	--	--	--	--	--

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)
MAY 05...	12	12	673	0	552	1800	11	.7	2.9	3160	4.30	.00
AUG 17...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
MAY 05...	.00	.01	.00	1.1	1.2	1.1	1.2	1.1	.07	.00	6600	.4
AUG 17...	--	--	--	--	--	--	--	--	--	--	--	--

DATE	SUSPENDED SEDIMENT (MG/L)	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM
MAY 05...	307	--	--	--	--	--	--	--	--	--	--
AUG 17...	--	17	25	34	39	40	45	56	72	89	100

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ALUMINUM IN BOTTOM MATERIAL (UG/G)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BARIUM IN BOTTOM MATERIAL (UG/G)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	TOTAL BERYLLIUM IN BOTTOM MATERIAL (UG/G)	DISSOLVED BORON (B) (UG/L)
MAY 05...	1515	450	10	--	1	0	--	10	0	--	160
AUG A17...	1500	--	--	2000	--	--	140	--	--	1	--

A Trace elements determined by spectrographic analysis.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324918 COTTONWOOD CREEK AT MOUTH, NEAR WESTON, WY (LAT 44 36 30 LONG 105 17 40)

DATE	TOTAL BORON IN BOTTOM MATERIAL (UG/G)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CADMIUM IN BOTTOM MATERIAL (UG/G)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL CHROMIUM IN BOTTOM MATERIAL (UG/G)	TOTAL COBALT IN BOTTOM MATERIAL (UG/G)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)
MAY										
05...	--	<10	0	--	0	10	--	--	10	1
AUG										
A17...	<1	--	--	2	--	--	10	10	--	--

DATE	TOTAL COPPER IN BOTTOM MATERIAL (UG/G)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL IRON IN BOTTOM MATERIAL (UG/G)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LEAD IN BOTTOM MATERIAL (UG/G)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
MAY										
05...	--	1000	30	--	<100	0	--	40	40	530
AUG										
A17...	16	--	--	7700	--	--	11	--	--	--

DATE	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MANGANESE IN BOTTOM MATERIAL (UG/G)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL MOLYBDENUM IN BOTTOM MATERIAL (UG/G)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL NICKEL IN BOTTOM MATERIAL (UG/G)
MAY										
05...	410	--	.0	.0	2	1	--	50	4	--
AUG										
A17...	--	230	--	--	--	--	<1	--	--	20

DATE	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	TOTAL SILVER IN BOTTOM MATERIAL (UG/G)	TOTAL STRONTIUM IN BOTTOM MATERIAL (UG/G)	TOTAL TITANIUM IN BOTTOM MATERIAL (UG/G)	TOTAL VANADIUM IN BOTTOM MATERIAL (UG/G)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	TOTAL ZINC IN BOTTOM MATERIAL (UG/G)
MAY										
05...	0	0	--	--	--	--	.0	10	0	--
AUG										
A17...	--	--	<0	75	37	21	--	--	--	46

A Trace elements determined by spectrographic analysis.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING
WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976
YELLOWSTONE RIVER BASIN

06324918 COTTONWOOD CREEK AT MOUTH, NEAR WESTON, WY (LAT 44 36 30 LONG 105 17 40)

PHYTOPLANKTON ANALYSES

MAY 5, 1976
1515 HOURS
IDENTIFICATION OF PHYTOPLANKTON
6,600 CELLS/ML

	_ORGANISM__NAME	_COMMON__NAME	CELLS/ML	PER_CENT
	CHLOROPHYTA	GREEN ALGAE		
	.CHLOROPHYCEAE			
	..CHLOROCOCCALES			
	...OCCYSTACEAE			
D	....ANKISTRODESMUS		1,200	18
	...SCENEDESMACEAE			
	....SCENEDESMUS		170	3
	CHRYSOPHYTA			
	.BACILLARIOPHYCEAE	DIATOMS		
	..PENNALES	PENNATE		
	...NAVICULACEAE	NAVICULOID		
	....GYROSIGMA		83	1
L	....NAVICULA			0
	...NITZSCHIACEAE			
	....NITZSCHIA		330	5
	.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE		
	..CHRYSOMONADALES			
	...CHROMULINACEAE			
D	....CHRYSOCOCCUS		4,600	70
	EUGLENOPHYTA	EUGLENOIDS		
	.EUGLENOPHYCEAE			
	..EUGLENALES			
	...EUGLENACEAE			
	....EUGLENA		170	3
	....TRACHELOMONAS		83	1

NOTE: D - DOMINANT ORGANISM; GREATER OR EQUAL TO 15%
L - LESS THAN 1%; MAY NOT HAVE BEEN ACTUALLY COUNTED
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER, 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
PHYL/DIV 0.947
CLASS 1.262
ORDER 1.262
FAMILY 1.417
GENERA 1.452

PERIPHYTON ANALYSES

MAY 5, 1976
1515 HOURS
IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME	_COMMON__NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	..ULOTRICHALES	
	...MICROSPORACEAE	
O	....MICROSPORA	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....CLOSTERIUM	
	...ZYGNEMATACEAE	
O	....SPIROGYRA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHAPALODIA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPRORA	
O	....CALONEIS	
O	....GYROSIGMA	
O	....MASTOGLOIA	
E	....NAVICULA	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....CYMATOPLEURA	
O	....SURIRELLA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

YELLOWSTONE RIVER BASIN

06324950 ELK CREEK TRIBUTARY NEAR RECLUSE, WY (LAT 44 49 00 LONG 105 33 23)

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL BORON (B) (UG/L)	TOTAL IRON (FE) (UG/L)
JUN 15...	0830	E.05	1700	12.0	860	5.2	.4	10	490	730

444924105314301 ELK CREEK NEAR RECLUSE, WY (LAT 44 49 24 LONG 105 31 43)

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL BORON (B) (UG/L)	TOTAL IRON (FE) (UG/L)
JUN 15...	0945	E.05	500	11.0	180	2.6	.1	8.2	130	1700

06324955 NORTH DIVIDE DRAW NEAR RECLUSE, WY (LAT 44 49 04 LONG 105 32 02)

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL BORON (B) (UG/L)	TOTAL IRON (FE) (UG/L)
JUN 15...	0730	E.05	1050	6.0	540	6.1	.4	4.7	220	1200

444828105262301 ELK CREEK NEAR WESTON, WY (LAT 44 48 28 LONG 105 26 23)

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL BORON (B) (UG/L)	TOTAL IRON (FE) (UG/L)
JUN 15...	1020	E2.0	1600	11.0	700	5.2	.6	19	500	310

444828105262802 ELK CREEK NEAR MOUTH, NEAR WESTON, WY (LAT 44 48 28 LONG 105 26 28)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	TEMPER-ATURE (DEG C)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)
JUN 15...	1758	1500	18.0	140	23	550	1.8	.6	20	80

E Estimate.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

430245105420900 FRANK DRAW TRIBUTARY NO. 1 NEAR ORPHA, WY (LAT 43 02 45 LONG 105 42 09)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)
AUG										
02...	1500	4.4	620	8.7	20.0	1	9.3	270	170	71
02...	1505	4.4	620	8.7	20.0	--	--	--	--	--

DATE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
AUG										
02...	22	27	.7	8.5	107	6	98	220	3.0	.4
02...	--	--	--	8.5	--	--	--	--	--	--

DATE	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NONFILTRABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)
AUG										
02...	13	--	424	.58	5.04	--	.01	.01	.00	.00
02...	--	480	--	--	--	3	--	--	--	--

DATE	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)
AUG										
02...	.15	.33	.15	.33	.16	.02	.01	1700	.0	38
02...	--	--	--	--	--	--	--	--	--	--

DATE	SUSPENDED SEDIMENT DISCHARGE (T/DAY)	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM
AUG									
02...	.45	43	55	66	81	91	96	99	100
02...	--	--	--	--	--	--	--	--	--

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	DISSOLVED BARIUM (BA) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	TOTAL BISMUTH (BI) (UG/L)	DISSOLVED BISMUTH (BI) (UG/L)
AUG											
02...	1500	150	0	2	1	--	--	0	0	--	--
A02...	1505	290	20	--	--	200	60	<6	<3	<6	<3

DATE	TOTAL BORON (B) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL GALLIUM (GA) (UG/L)
AUG											
02...	--	70	<10	0	0	0	--	--	<10	1	--
A02...	520	130	<10	0	<6	<3	<6	<3	<3	<1	<6

A Trace elements determined by spectrographic analysis.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

430245105420900 FRANK DRAW TRIBUTARY NO. 1 NEAR ORPHA, WY (LAT 43 02 45 LONG 105 42 09)

DATE	DIS-SOLVED GALLIUM (GA) (UG/L)	TOTAL GER-MANIUM (GE) (UG/L)	DIS-SOLVED GER-MANIUM (GE) (UG/L)	TOTAL IRUN (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
AUG											
02...	--	--	--	110	10	<100	0	20	20	10	10
A02...	<3	<20	<7	170	30	27	4	20	20	9	[illegible]

DATE	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	TOTAL STRON-TIUM (SR) (UG/L)
AUG											
02...	.0	.0	2	1	<50	2	2	2	--	--	--
A02...	--	--	<6	<3	33	11	--	--	<3	<1	760

DATE	DIS-SOLVED STRON-TIUM (SR) (UG/L)	TOTAL TIN (SN) (UG/L)	DIS-SOLVED TIN (SN) (UG/L)	TOTAL TI-TANIUM (TI) (UG/L)	DIS-SOLVED TI-TANIUM (TI) (UG/L)	TOTAL VANA-DIUM (V) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZIR-CONIUM (ZR) (UG/L)	DIS-SOLVED ZIR-CONIUM (ZR) (UG/L)
AUG											
02...	--	--	--	--	--	--	--	10	0	--	--
A02...	310	22	<4	40	<3	<13	<5.8	0	0	<6	<3

DATE	TIME	TOTAL ALUMI-NUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BARIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BERYL-LIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BORON IN BOTTOM MA-TERIAL (UG/G)	TOTAL CADMIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL CHRO-MIUM IN BUTTOM MA-TERIAL (UG/G)	TOTAL COBALT IN BOTTOM MA-TERIAL (UG/G)	TOTAL COPPER IN BOTTOM MA-TERIAL (UG/G)	TOTAL IRON IN BOTTOM MA-TERIAL (UG/G)
AUG										
a A02...	1505	65	3	0	<0	1	<0	<0	2	95

DATE	TOTAL LEAD IN BOTTOM MA-TERIAL (UG/G)	TOTAL MANGA-NESE IN BOTTOM MA-TERIAL (UG/G)	TOTAL MOLYB-DENUM IN BUT-TOM MA-TERIAL (UG/G)	TOTAL NICKEL IN BOTTOM MA-TERIAL (UG/G)	TOTAL SILVER IN BOTTOM MA-TERIAL (UG/G)	TOTAL STRON-TIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL TITA-NIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL VANA-DIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL ZINC IN BOTTOM MA-TERIAL (UG/G)
AUG									
A02...	<0	26	<0	<0	<0	1	<0	1.8	24

DATE	TIME	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (PLAN-CHET COUNT) (PC/L)	DIS-SOLVED NATURAL URANIUM (U) (UG/L)
AUG									
02...	1505	110	1.6	22	4.1	18	3.8	5.9	16

A Trace elements determined by spectrographic analysis.

430245105420900 FRANK DRAW TRIBUTARY NO. 1 NEAR ORPHA, WY (LAT 43 02 45 LONG 105 42 09)

PHYTOPLANKTON ANALYSES

DATE	AUG 2,76
TIME	1500
TOTAL CELLS/ML	1700
DIVERSITY: DIVISION	0.4
.CLASS	0.4
..ORDER	0.4
...FAMILY	0.4
....GENUS	0.4

ORGANISM	CELLS /ML	PER- CENT
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..PENNALES		
...GOMPHONEMATACEAE		
....GOMPHONEMA	25	2
...NAVICULACEAE		
....NAVICULA	25	2
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	1600#	94
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....TRACHELOMONAS	62	4

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

PERIPHYTON ANALYSES

AUG. 2, 1976
1500 HOURS
IDENTIFICATION OF PERIPHYTUN

	_ORGANISM__NAME_	_COMMON__NAME_
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...OCCYSTACEAE	
O	....OOCYSTIS	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
E	....OEDOGONIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
E	....FRAGILARIA	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
E	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....ANOMOEONEIS	
O	....CALONEIS	
O	....GYROSIGMA	
O	....NAVICULA	
O	....PINNULARIA	
	...NITZSCHIACEAE	
O	....HANTZSCHIA	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....LYNGBYA	
O	....SPIRULINA	
	...RIVULARIACEAE	
O	....LEPTOCHAETE	

NOTE: E - ESTIMATED DOMINANT ORGANISM: NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
SAMPLING METHOD: PICKED ROCKS, RANDOM
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

430420105234301 BOX CREEK BELOW SOUTH FORK BOX CREEK, NEAR BILL, WY (LAT 43 04 20 LONG 105 23 43)

DATE	TIME	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)
OCT											
30...	1300	.05	1600	8.1	9.0	--	--	--	--	--	--
AUG											
02...	1200	.03	1730	7.9	18.0	4	7.4	410	160	68	59
02...	1205	.03	1730	7.9	18.0	--	--	--	--	--	--

DATE	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)
OCT										
30...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	240	5.1	5.1	303	0	249	600	18	.3	.7
02...	--	--	4.9	--	--	--	--	--	--	--

DATE	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)
OCT										
30...	12000	--	--	--	2	--	--	--	--	--
AUG										
02...	--	1140	1.55	.09	--	.01	.01	.00	.01	.61
02...	1100	--	--	--	11	--	--	--	--	--

DATE	DIS-SOLVED ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUS-PENDED SEDI-MENT (MG/L)	SUS-PENDED SEDI-MENT DIS-CHARGE (T/DAY)
OCT										
30...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	.19	.61	.20	.62	.04	.01	1900	.0	67	.01
02...	--	--	--	--	--	--	--	--	--	--

DATE	SUS. SED. SIEVE DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .062 MM	BED MAT. FALL DIAM. % FINER THAN .125 MM	BED MAT. FALL DIAM. % FINER THAN .250 MM	BED MAT. FALL DIAM. % FINER THAN .500 MM	BED MAT. FALL DIAM. % FINER THAN 1.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM
OCT										
30...	--	--	--	--	--	--	--	--	--	--
AUG										
02...	52	10	21	46	75	86	92	96	99	100
02...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BARIUM (BA) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	TOTAL BISMUTH (BI) (UG/L)	DIS-SOLVED BISMUTH (BI) (UG/L)
OCT											
30...	1300	--	40	--	--	--	40	--	<3	--	<15
AUG											
02...	1200	550	0	3	1	--	--	0	0	--	--
A02...	1205	410	70	--	--	40	20	<10	<8	<12	<8

A Trace elements determined by spectrographic analysis.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

430420105234301 BOX CREEK BELOW SOUTH FORK BOX CREEK, NEAR BILL, WY (LAT 43 04 20 LONG 105 23 43)

DATE	TOTAL BORON (B) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COBALT (CO) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL GALLIUM (GA) (UG/L)
OCT											
30...	--	60	--	0	--	<7	--	<7	--	5	--
AUG											
02...	--	70	<10	1	0	0	--	--	10	1	--
A02...	80	30	<10	1	<12	<8	<12	<8	<6	<4	<10

DATE	DIS-SOLVED GALLIUM (GA) (UG/L)	TOTAL GER-MANIUM (GE) (UG/L)	DIS-SOLVED GER-MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
OCT											
30...	<3	--	<20	--	100	--	<7	--	20	--	70
AUG											
02...	--	--	--	680	20	<100	1	30	20	300	60
A02...	<8	<30	<20	520	30	58	<12	30	20	270	40

DATE	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	TOTAL SILVER (AG) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	TOTAL STRON-TIUM (SR) (UG/L)
OCT											
30...	--	--	--	<3	--	<7	--	--	--	<2	--
AUG											
02...	.0	.0	0	0	<50	3	0	0	--	--	--
A02...	--	--	<12	<8	19	<8	--	--	<6	<4	870

DATE	DIS-SOLVED STRON-TIUM (SR) (UG/L)	TOTAL TIN (SN) (UG/L)	DIS-SOLVED TIN (SN) (UG/L)	TOTAL TI-TANIUM (TI) (UG/L)	DIS-SOLVED TI-TANIUM (TI) (UG/L)	TOTAL VANA-DIUM (V) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZIR-CONIUM (ZR) (UG/L)	DIS-SOLVED ZIR-CONIUM (ZR) (UG/L)
OCT											
30...	1700	--	<15	--	<4	--	<4.0	--	10	--	<20
AUG											
02...	--	--	--	--	--	--	--	10	0	--	--
A02...	620	<17	<12	70	<8	<23	<16	10	10	<20	<20

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	TIME	TOTAL ALUMI-NUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BARIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BERYL-LIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL BORON IN BOTTOM MA-TERIAL (UG/G)	TOTAL CADMIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL CHRO-MIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL COBALT IN BOTTOM MA-TERIAL (UG/G)	TOTAL COPPER IN BOTTOM MA-TERIAL (UG/G)	TOTAL IRON IN BOTTOM MA-TERIAL (UG/G)
AUG										
A02...	1205	1100	22	1	<0	1	8	4	4	2100

DATE	TOTAL LEAD IN BOTTOM MA-TERIAL (UG/G)	TOTAL MANGA-NESE IN BOTTOM MA-TERIAL (UG/G)	TOTAL MOLYB-DENUM IN BOT-TOM MA-TERIAL (UG/G)	TOTAL NICKEL IN BOTTOM MA-TERIAL (UG/G)	TOTAL SILVER IN BOTTOM MA-TERIAL (UG/G)	TOTAL STRON-TIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL TITA-NIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL VANA-DIUM IN BOTTOM MA-TERIAL (UG/G)	TOTAL ZINC IN BOTTOM MA-TERIAL (UG/G)
AUG									
A02...	2	34	<0	11	<8	29	1	7.9	12

DATE	TIME	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (PLAN-CHET COUNT) (PC/L)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L)	DIS-SOLVED NATURAL URANIUM (U) (UG/L)	DIS-SOLVED URANIUM (U) (UG/L)
OCT											
30...	1300	40	<.4	11	5.4	9.3	5.0	--	.08	--	33
AUG											
02...	1205	20	1.4	12	5.1	9.3	4.5	<.1	--	10	--

A Trace elements determined by spectrographic analysis.

CHEYENNE RIVER BASIN

430420105234301 BOX CREEK BELOW SOUTH FORK BOX CREEK, NEAR BILL, WY (LAT 43 04 20 LONG 105 23 43)

PHYTOPLANKTON ANALYSES

DATE	AUG 2,76
TIME	1200
TOTAL CELLS/ML	1900
DIVERSITY: DIVISION	0.6
.CLASS	0.6
..ORDER	0.6
...FAMILY	0.6
....GENUS	1.2

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...SCENEDESMACEAE		
....SCENEDESMUS	75	5
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....MELOSIRA	56	4
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....LYNGBYA	280#	16
....OSCILLATORIA	1400#	76
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	19	2
....TRACHELOMONAS	19	2

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THA 15%
* - OBSERVED ORGANISM, MAY NOT HAVE HEEN COUNTD: LESS THAN 1/2%

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

430420105234301 BOX CREEK BELOW SOUTH FORK BOX CREEK, NEAR BILL, WY (LAT 43 04 20 LONG 105 23 43)

PERIPHYTON ANALYSES

AUG. 2, 1976
1200 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME_____	_COMMON__NAME_____
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...HYDRODICTYACEAE	
O	....PEDIASTRUM	
O	....SORASTRUM	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..CLADOPHORALES	
	...CLADOPHORACEAE	
E	....CLADOPHORA	
E	....RHIZOCLONIUM	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	..ULOTRICHALES	
	...CHAETOPHORACEAE	
O	....STIGEOCLONIUM	
	...MICROSPORACEAE	
O	....CYLINDROCAPSA	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....COSMARIUM	
	...ZYGNEMATACEAE	
O	....MOUGEOTIA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....CYMBELLA	
O	....EPITHEMIA	
O	....RHOPALODIA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....CALONEIS	
O	....DIPLONEIS	
O	....GYROSIGMA	
O	....NAVICULA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..CHROOCOCCALES	COCCOID
	...CHROOCOCCACEAE	
O	....AGMENELLUM	
O	....ANACYSTIS	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....LYNGBYA	
O	....OSCILLATORIA	
O	....SPIRULINA	
	...RIVULARIACEAE	
O	....CALOTHRIX	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....EUGLENA	
O	....PHACUS	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

06392900 BEAVER CREEK AT MALLO CAMP, NEAR FOUR CORNERS, WY (LAT 44 05 04 LONG 104 03 41)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)
NOV												
11...	1130	A1.4	560	8.7	.0	240	0	60	23	1.9	.1	2.4

DATE	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
NOV												
11...	293	3	245	2.0	1.0	.2	.0	.00	12	250	251	.34

DATE	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED ORTHO PHOSPHATE (PO4) (MG/L)	DISSOLVED ORTHO. PHOSPHORUS (P) (MG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED BARIUM (BA) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	DISSOLVED COPPER (CU) (UG/L)
NOV												
11...	.17	.06	.02	40	2	100	0	20	1	0	6	4

DATE	DISSOLVED IRON (FE) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
NOV												
11...	20	7	10	20	.0	0	80	0	0	70	2.1	30

A Daily mean discharge.

WATER QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

441610105310500 GILLETTE FISHING LAKE NEAR GILLETTE, WY (LAT 44 16 10 LONG 105 31 05)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
MAY 04...	1600	3900	8.2	14.5	35	8.5	5.6	2700	2500	480	370	200

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)
MAY 04...	1.7	26	256	210	3000	13	.3	5.3	4220	5.74	.03	.03

DATE	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITRUGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)
MAY 04...	.08	.00	2.6	.00	2.7	.00	2.7	.22	.00	20000	.4

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
MAY 04...	1600	790	30	2	1	0	0	170	<10	0	20

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
MAY 04...	20	10	1	2000	30	<100	1	330	320	1300	710

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
MAY 04...	.0	.0	3	3	100	4	0	0	.0	10	0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

441610105310500 GILLETTE FISHING LAKE NEAR GILLETTE, WY (LAT 44 16 10 LONG 105 31 05)

PHYTOPLANKTON ANALYSES

DATE	MAY 4,76
TIME	1600
TOTAL CELLS/ML	20000
DIVERSITY: DIVISION	1.4
.CLASS	1.4
..ORDER	1.4
...FAMILY	1.6
....GENUS	1.6

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	11000#	55
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..PENNALES		
...NAVICULACEAE		
....ENTOMONEIS	310	2
....NAVICULA	610	4
...NITZSCHIACEAE		
....NITZSCHIA	6400#	32
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..OSCILLATORIALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	1500	8
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	310	2

NOTE: # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

PERIPHYTON ANALYSES

MAY 4, 1976
1600 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..OEDOGONIALES	
	...OEDOGONIACEAE	
O	....OEDOGONIUM	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPRORA	
O	....GYROSIGMA	
O	....NAVICULA	
	...NITISCHIACEAE	
E	....NITISCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

441650105233000 DONKEY CREEK ABOVE WYODAK MINE, NEAR GILLETTE, WY (LAT 44 16 50 LONG 105 23 30)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	DIS-SOLVED OXYGEN (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)
MAY						
05...	1800	3250	8.7	15.0	13.5	680

441650105203000 DONKEY CREEK BELOW WYODAK MINE, NEAR GILLETTE, WY (LAT 44 16 50 LONG 105 20 30)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	BIO-CHEM-ICAL OXYGEN DEMAND 5 DAY (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)
MAY												
05...	0800	2900	8.2	11.0	7	7.2	6.6	940	610	180	120	340

DATE	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)
MAY												
05...	4.8	20	403	331	1100	200	1.2	9.0	2170	2.95	.90	.88

DATE	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	DIS-SOLVED AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	DIS-SOLVED ORGANIC NITRU-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	TOTAL PHYTO-PLANK-TON (CELLS PER ML)	POTEN-TIAL ALGAL GROWTH BOTTLE TEST (MG/L)
MAY											
05...	.04	.03	2.2	1.3	2.2	1.3	3.2	2.3	2.0	23000	51

DATE	TIME	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)
MAY											
05...	0800	210	0	3	2	10	10	410	<10	0	0

DATE	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)
MAY											
05...	10	10	2	300	70	<100	0	70	90	240	150

DATE	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
MAY											
05...	.0	.0	1	1	<50	6	1	1	2.6	0	0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

441650105203000 DONKEY CREEK BELOW WYODAK MINE, NEAR GILLETTE, WY (LAT 44 16 50 LONG 105 20 30)

PHYTOPLANKTON ANALYSES

DATE	MAY 5,76
TIME	0800
TOTAL CELLS/ML	23000
DIVERSITY: DIVISION	1.5
.CLASS	1.5
..ORDER	2.3
...FAMILY	2.8
....GENUS	3.1

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...MICRACTINIACEAE		
....MICRACTINIUM	900	4
...OOCYSTACEAE		
....ANKISTRODESMUS	1800	8
....KIRCHNERIELLA	400	2
....OOCYSTIS	800	4
...SCENEDESMACEAE		
....ACTINASTRUM	800	4
....SCENEDESMUS	200	1
....TETRASTRUM	800	4
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CHLAMYDOMONAS	5000#	22
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..PENNALES		
...NAVICULACEAE		
....ENTOMONEIS	*	0
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	5500#	24
..PENNALES		
...DIATOMACEAE		
....DIATOMA	*	0
...GOMPHONEMATACEAE		
....GOMPHONEMA	*	0
...NAVICULACEAE		
....NAVICULA	400	2
...NITZSCHIACEAE		
....NITZSCHIA	2300	10
...SURIRELLACEAE		
....SURIRELLA	200	1
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	4000#	18

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

441650105203000 DONKEY CREEK BELOW WYODAK MINE, NEAR GILLETTE, WY (LAT 44 16 50 LONG 105 20 30)

PERIPHYTON ANALYSES

MAY 5, 1976
0800 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME_______________	_COMMON__NAME_______
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...OCCYSTACEAE	
O	....ANKISTRODESMUS	
O	....DICTYOSPHAERIUM	
O	....OOCYSTIS	
	...SCENEDESMACEAE	
O	....ACTINASTRUM	
O	....SCENEDESMUS	
	..ULOTRICHALES	
	...CHAETOPHORACEAE	
O	....STIGEOCLONIUM	
	..ZYGNEMATALES	
	...DESMIDIACEAE	PLACODERM DESMIDS
O	....CLOSTERIUM	
	...ZYGNEMATACEAE	
O	....SPIROGYRA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....ACHNANTHES	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....AMPHORA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
E	....FRAGILARIA	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
O	....AMPHIPRORA	
O	....GYROSIGMA	
E	....NAVICULA	
O	....PINNULARIA	
	...NITZSCHIACEAE	
O	....NITZSCHIA	
	...SURIRELLACEAE	
E	....SURIRELLA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...OSCILLATORIACEAE	
O	....LYNGBYA	
E	....OSCILLATORIA	
O	....SPIRULINA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....EUGLENA	
O	....PHACUS	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

441630105120000 DONKEY CREEK NEAR ROZET, WY (LAT 44 16 30 LONG 105 12 00)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	BIOCHEMICAL OXYGEN DEMAND 5 DAY (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
MAY 04...	1300	2400	8.4	15.5	7	8.6	3.1	1300	910	230	170	410

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)
MAY 04...	5.0	25	440	361	1500	190	1.1	3.6	2750	3.74	.03	.03

DATE	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	DISSOLVED ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	DISSOLVED KJEL. NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	DISSOLVED PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)
MAY 04...	.02	.02	1.4	1.2	1.4	1.2	1.4	.84	.68	16000	9.4	14

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BORON (B) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)
MAY 04...	1300	220	0	3	3	0	10	530	<10	0	0

DATE	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L;	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)
MAY 04...	10	10	3	280	40	<100	1	80	90	220	150

DATE	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)
MAY 04...	.0	.0	2	2	<50	6	1	0	1.9	0	0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

441630105120000 DONKEY CREEK NEAR ROZET, WY (LAT 44 16 30 LONG 105 12 00)

PHYTOPLANKTON ANALYSES

DATE	MAY 4,76
TIME	1300
TOTAL CELLS/ML	16000
DIVERSITY: DIVISION	1.6
.CLASS	2.0
..ORDER	2.5
...FAMILY	2.6
....GENUS	2.8

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....ANKISTRODESMUS	790	6
....KIRCHNERIELLA	730	5
....SELENASTRUM	180	2
...SCENEDESMACEAE		
....SCENEDESMUS	370	3
..VOLVOCALES		
...CHLAMYDOMONADACEAE		
....CARTERIA	*	0
....CHLAMYDOMONAS	1800	12
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	1400	9
..PENNALES		
...NAVICULACEAE		
....NAVICULA	*	0
...NITZSCHIACEAE		
....NITZSCHIA	2600#	17
.CHRYSOPHYCEAE		
..CHRYSOMONADALES		
...CHROMULINACEAE		
....CHRYSOCOCCUS	2000	13
CYANOPHYTA (BLUE-GREEN ALGAE)		
.MYXOPHYCEAE		
..CHROOCOCCALES		
...CHROOCOCCACEAE		
....ANACYSTIS	5600#	36
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....EUGLENA	180	2

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CHEYENNE RIVER BASIN

441630105120000 DONKEY CREEK NEAR ROZET, WY (LAT 44 16 30 LONG 105 12 00)

PERIPHYTON ANALYSES

MAY 4, 1976
1300 HOURS

IDENTIFICATION OF PERIPHYTON

	ORGANISM NAME	COMMON NAME
	CHLOROPHYTA	GREEN ALGAE
	.CHLOROPHYCEAE	
	..CHLOROCOCCALES	
	...OCCYSTACEAE	
O	....ANKISTRODESMUS	
O	....DICTYOSPHAERIUM	
O	....KIRCHNERIELLA	
	...SCENEDESMACEAE	
O	....SCENEDESMUS	
	..ULOTRICHALES	
	...MICROSPORACEAE	
O	....CYLINDROCAPSA	
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..CENTRALES	CENTRIC
	...COSCINODISCACEAE	
O	....CYCLOTELLA	
	..PENNALES	PENNATE
	...CYMBELLACEAE	
O	....AMPHORA	
	...DIATOMACEAE	
O	....DIATOMA	
	...NAVICULACEAE	NAVICULOID
O	....NAVICULA	
O	....PINNULARIA	
O	....STAURONEIS	
	...NITZSCHIACEAE	
E	....NITZSCHIA	
	...SURIRELLACEAE	
O	....SURIRELLA	
	.CHRYSOPHYCEAE	YELLOW-BROWN ALGAE
	..CHRYSOMONADALES	
	...CHROMULINACEAE	
O	....CHRYSOCOCCUS	
	.XANTHOPHYCEAE	YELLOW-GREEN ALGAE
	..HETEROTRICHALES	
	...TRIBONEMATACEAE	
O	....TRIBONEMA	
	CYANOPHYTA	BLUE-GREEN ALGAE
	.MYXOPHYCEAE	
	..OSCILLATORIALES	FILAMENTOUS
	...NOSTOCACEAE	
O	....ANABAENA	
	...OSCILLATORIACEAE	
O	....OSCILLATORIA	
	EUGLENOPHYTA	EUGLENOIDS
	.EUGLENOPHYCEAE	
	..EUGLENALES	
	...EUGLENACEAE	
O	....PHACUS	
O	....TRACHELOMONAS	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM; NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PLATTE RIVER BASIN

425030105480600 NORTH PLATTE RIVER AT DRY CREEK, NEAR GLENROCK, WY (LAT 42 50 30 LONG 105 48 06)

DATE	TIME	INSTANTANEOUS DISCHARGE (CFS)	SPECIFIC CONDUCTANCE (MICROMHOS)	PH (UNITS)	TEMPERATURE (DEG C)	TURBIDITY (JTU)	DISSOLVED OXYGEN (MG/L)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)
JAN 20...	1400	1000	720	7.9	3.0	7	9.0	240	97	63	21	51
APR 13...	1600	1200	690	8.5	11.0	45	10.1	220	95	57	20	47
AUG 04...	1815	3700	420	8.1	17.0	55	--	200	78	54	16	35
04...	1820	3700	420	8.1	17.0	--	--	--	--	--	--	--

DATE	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)
JAN 20...	1.4	3.6	179	0	147	180	17	.4	9.1	--	434	.59
APR 13...	1.4	3.6	158	0	130	170	12	.3	6.5	--	394	.54
AUG 04...	1.1	3.4	150	0	120	160	9.3	.4	11	--	363	.49
04...	--	--	--	--	--	--	--	--	--	370	--	--

DATE	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)	TOTAL PHOSPHORUS (P) (MG/L)	TOTAL PHYTOPLANKTON (CELLS PER ML)	POTENTIAL ALGAL GROWTH BOTTLE TEST (MG/L)	SUSPENDED SEDIMENT (MG/L)	SUSPENDED SEDIMENT DISCHARGE (T/DAY)
JAN 20...	1170	.63	.12	.73	.85	1.5	.07	340	25	11	30
APR 13...	1280	.01	.00	2.0	2.0	2.0	.30	--	--	144	467
AUG 04...	3630	.46	.02	.53	.55	1.0	.15	--	--	208	2080
04...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	TOTAL ALUMINUM (AL) (UG/L)	DISSOLVED ALUMINUM (AL) (UG/L)	TOTAL ANTIMONY (SB) (UG/L)	DISSOLVED ANTIMONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	DISSOLVED BARIUM (BA) (UG/L)	TOTAL BERYLLIUM (BE) (UG/L)	DISSOLVED BERYLLIUM (BE) (UG/L)	DISSOLVED BISMUTH (BI) (UG/L)	DISSOLVED BORON (B) (UG/L)
JAN 20...	1400	290	0	0	0	0	0	--	0	0	--	110
APR 13...	1600	2800	10	0	0	5	1	--	0	0	--	70
AUG 04...	1815	2500	40	0	0	3	1	--	0	0	--	60
A04...	1820	--	40	--	--	--	--	30	--	<3	<3	50

A Trace elements determined by spectrographic analysis.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES IN WYOMING

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

PLATTE RIVER BASIN

425030105480600 NORTH PLATTE RIVER AT DRY CREEK, NEAR GLENROCK, WY (LAT 42 50 30 LONG 105 48 06)

DATE	TOTAL CADMIUM (CD) (UG/L)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED GALLIUM (GA) (UG/L)	DISSOLVED GERMANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)
JAN 20...	<10	0	0	0	--	10	3	--	--	260	10
APR 13...	<10	1	10	0	--	20	3	--	--	4300	10
AUG 04...	<10	7	0	0	--	<10	6	--	--	3200	20
A04...	--	3	--	<3	<3	--	4	<3	<7	--	20

DATE	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)
JAN 20...	<100	3	30	30	20	10	.0	.0	1	2	<50
APR 13...	100	1	30	30	200	20	.1	.0	3	3	50
AUG 04...	<100	3	30	20	80	0	.1	.2	2	2	<50
A04...	--	4	--	20	--	4	--	--	--	5	--

DATE	DISSOLVED NICKEL (NI) (UG/L)	TOTAL SELENIUM (SE) (UG/L)	DISSOLVED SELENIUM (SE) (UG/L)	DISSOLVED SILVER (AG) (UG/L)	DISSOLVED STRONTIUM (SR) (UG/L)	DISSOLVED TIN (SN) (UG/L)	DISSOLVED TITANIUM (TI) (UG/L)	DISSOLVED VANADIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DISSOLVED ZINC (ZN) (UG/L)	DISSOLVED ZIRCONIUM (ZR) (UG/L)
JAN 20...	4	6	6	--	--	--	--	1.6	50	20	--
APR 13...	2	6	5	--	--	--	--	.7	350	20	--
AUG 04...	3	3	3	--	--	--	--	.0	20	10	--
A04...	17	--	--	<1	200	<4	10	<5.2	--	10	<5

DATE	TIME	DISSOLVED GROSS ALPHA AS U-NAT. (UG/L)	DISSOLVED GROSS BETA AS CS-137 (PC/L)	DISSOLVED GROSS BETA AS SR90 /Y90 (PC/L)	DISSOLVED RA-226 (PLANCHET COUNT) (PC/L)	DISSOLVED NATURAL URANIUM (U) (UG/L)
AUG 04...	1820	12	9.7	8.0	.2	8.3

A Trace elements determined by spectrographic analysis.

PLATTE RIVER BASIN

425030105480600 NORTH PLATTE RIVER AT DRY CREEK, NEAR GLENROCK, WY (LAT 42 50 30 LONG 105 48 06)

PHYTOPLANKTON ANALYSES

JAN. 20, 1976
1400 HOURS

IDENTIFICATION OF PHYTOPLANKTON

340 CELLS/ML

	_ORGANISM__NAME	_COMMON__NAME	CELLS/ML	PER_CENT
	CHRYSOPHYTA			
	.BACILLARIOPHYCEAE	DIATOMS		
	..CENTRALES	CENTRIC		
	...COSCINODISCACEAE			
L	....CYCLOTELLA			0
	..PENNALES	PENNATE		
	...ACHNANTHACEAE			
L	....COCCONEIS			0
	...DIATOMACEAE			
D	....DIATOMA		130	39
	...FRAGILARIACEAE			
L	....FRAGILARIA			0
	...GOMPHONEMATACEAE			
	....GOMPHONEMA		38	11
	...NAVICULACEAE	NAVICULOID		
D	....NAVICULA		170	50
	...NITZSCHIACEAE			
L	....NITZSCHIA			0
	...SURIRELLACEAE			
L	....SURIRELLA			0

NOTE: D - DOMINANT ORGANISM: GREATER OR EQUAL TO 15%
L - LESS THEN 1%: MAY NOT HAVE BEEN ACTUALLY COUNTED
ANALYSIS METHOD: SEDGWICK-RAFTER CHAMBER , 200-X MICROSCOPE
DIVERSITY INDICES, BASED ON ACTUAL COUNTS:
FAMILY 1.382
GENERA 1.382

PERIPHYTON ANALYSES

JAN. 20, 1976
1400 HOURS

IDENTIFICATION OF PERIPHYTON

	_ORGANISM__NAME	_COMMON__NAME
	CHRYSOPHYTA	
	.BACILLARIOPHYCEAE	DIATOMS
	..PENNALES	PENNATE
	...ACHNANTHACEAE	
O	....COCCONEIS	
	...CYMBELLACEAE	
O	....CYMBELLA	
O	....EPITHEMIA	
	...DIATOMACEAE	
O	....DIATOMA	
	...FRAGILARIACEAE	
O	....SYNEDRA	
	...GOMPHONEMATACEAE	
O	....GOMPHONEMA	
	...NAVICULACEAE	NAVICULOID
E	....NAVICULA	
	...NITZACHIACEAE	
O	....NITZSCHIA	
	...ACHNANTHACEAE	
O	....RHOICOSPHENIA	

NOTE: E - ESTIMATED DOMINANT ORGANISM; NOT ACTUALLY COUNTED
O - OBSERVED ORGANISM: NOT ACTUALLY COUNTED
ANALYSIS METHOD: SLIDE MOUNTING, 200-X MICROSCOPE

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
433452108124500 - BIGHORN R AT WEDDING OF THE WATER WY (LAT 43 34 52 LONG 108 12 45)		
SEP , 1976		
17...	--	581
434229108425500 - S F OWL C NR EMBER RANCH WY (LAT 43 42 29 LONG 108 42 55)		
SEP , 1976		
14...	--	302
MAY		
20...	--	120
434250108401900 - S F OWL C AT EMBER RANCH WY (LAT 43 42 50 LONG 108 40 19)		
MAY , 1976		
20...	--	210
SEP		
14...	--	456
434326108355900 - S F OWL C NR MOUTH NR ARAPAHOE RANCH WY (LAT 43 43 26 LONG 108 35 59)		
SEP , 1976		
14...	--	519
MAY		
20...	--	330
434336108352800 - S F OWL C AT MOUTH NR ARAPAHOE RANCH WY (LAT 43 43 36 LONG 108 35 28)		
SEP , 1976		
14...	--	547
434204108473200 - N F OWL C AB RATTLESNAKE C NR ANCHOR DAM WY (LAT 43 42 04 LONG 108 47 32)		
NOV , 1976		
04...	--	348
SEP		
14...	--	305
MAY		
20...	--	150
434327108320500 - OWL C AT ARAPAHOE RANCH WY (LAT 43 43 27 LONG 108 32 05)		
SEP , 1976		
14...	--	592
MAY		
20...	--	340
434207108281700 - OWL C AT MIDDLETON SCHOOL WY (LAT 43 42 07 LONG 108 28 17)		
SEP , 1976		
14...	--	1080
MAY		
20...	--	650

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

434128108233400 - OWL C NR THOMPSON RES NO 1 NR THERMOPOLIS WY (LAT 43 41 28 LONG 108 23 34)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
14...	--	1780
MAY		
20...	--	780

434104108200500 - MUD C AT MOUTH NR THERMOPOLIS WY (LAT 43 41 04 LONG 108 20 05)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
14...	--	6700
MAY		
20...	--	1950

06264000 - OWL CREEK NEAR THERMOPOLIS, WYOMING (LAT 43 41 09 LONG 108 18 08)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1976		
04...	--	2190

434112108160800 - OWL C 0.5MI BL EAGLE DRAW NR THERMOPOLIS WY (LAT 43 41 12 LONG 108 16 08)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1976		
04...	--	2190

434134108150400 - OWL C 3.1MI BL EAGLE DRAW NR THERMOPOLIS WY (LAT 43 41 34 LONG 108 15 04)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1976		
04...	--	2240

434129108145400 - OWL C 1.7MI AB MEETEETSE DRAW NR THERMOPOLIS WY (LAT 43 41 29 LONG 108 14 54)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1976		
04...	--	2250

434137108143500 - OWL C 1.0MI AB MEETEETSE DRAW NR THERMOPOLIS WY (LAT 43 41 37 LONG 108 14 35)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1976		
04...	--	2290

434152108141100 - OWL C BL MEETEETSE DRAW NR THERMOPOLIS WY (LAT 43 41 52 LONG 108 14 11)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1976		
04...	--	2320

434208108133000 - OWL C AT SUNNYSIDE LANE NR THERMOPOLIS WY (LAT 43 42 08 LONG 108 13 30)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
NOV , 1976		
08...	--	2300

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
434255108103200 - OWL C AT US HIGHWAY 20 NR LUCERNE WY (LAT 43 42 55 LONG 108 10 32)		
MAY , 1976		
20...	--	2450
NOV		
08...	--	2340
SEP		
14...	--	1860
434319108093100 - OWL C AT MOUTH NR LUCERNE WY (LAT 43 43 19 LONG 108 09 31)		
NOV , 1976		
08...	--	2430
SEP		
14...	--	2190
434419108081900 - KIRBY C AT BLACK MTN ROAD NR LUCERNE WY (LAT 43 44 19 LONG 108 08 19)		
SEP , 1976		
14...	--	714
434730108102600 - COAL DRAW AT MOUTH AT KIRBY WY (LAT 43 47 30 LONG 108 10 26)		
SEP , 1976		
14...	--	4830
435030108275300 - COTTONWOOD C AB GRASS C NR HAMILTON DOME WY (LAT 43 50 30 LONG 108 27 53)		
SEP , 1976		
14...	--	4420
MAY		
20...	--	1400
435445108291500 - GRASS C NR MOUTH NR GRASS CREEK WY (LAT 43 54 45 LONG 108 29 15)		
MAY , 1976		
20...	--	2150
SEP		
14...	--	3490
435146108091000 - COTTONWOOD C AT MOUTH AT WINCHESTER WY (LAT 43 51 46 LONG 108 09 10)		
SEP , 1976		
14...	--	4820
440033108395600 - GOOSEBERRY C AT ST HWY 120 NR DICKIE WY (LAT 44 00 33 LONG 108 39 56)		
SEP , 1976		
14...	--	1020
MAY		
20...	--	400
435524108035000 - GOOSEBERRY C AT MOUTH AT NEIBER WY (LAT 43 55 24 LONG 108 03 50)		
SEP , 1976		
14...	--	1640

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

433303107303300 - NOWOOD R BL CRAWFORD C NR NOWOOD WY (LAT 43 33 03 LONG 107 30 33)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
09...	--	600

433318107290300 - NOWOOD R BL LONE TREE C NR NOWOOD WY (LAT 43 33 18 LONG 107 29 03)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
09...	--	520

433405107283700 - NOWOOD R BL TROUT C NR NOWOOD WY (LAT 43 34 05 LONG 107 28 37)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
09...	--	1140

433502107262800 - NOWOOD R AB BEAR C NR NOWOOD WY (LAT 43 35 02 LONG 107 26 28)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
09...	--	1300

433622107244500 - NOWOOD R AT COUNTY BRIDGE AT NOWOOD WY (LAT 43 36 22 LONG 107 24 45)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
09...	--	1210

433816107233500 - NOWOOD R AB DEEP C NR NOWOOD WY (LAT 43 38 16 LONG 107 23 35)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
MAY , 1976		
13...	--	660
SEP		
09...	--	775

433817107233300 - DEEP C AT MOUTH NR NOWOOD WY (LAT 43 38 17 LONG 107 23 33)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
MAY , 1976		
13...	--	78
SEP		
09...	--	295

433821107233400 - NOWOOD R BL DEEP C NR NOWOOD WY (LAT 43 38 21 LONG 107 23 34)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
MAY , 1976		
13...	--	148
SEP		
09...	--	530

433849107224700 - NOWOOD R BL TELEPHONE DRAW NR NOWOOD WY (LAT 43 38 49 LONG 107 22 47)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
MAY , 1976		
13...	--	240
SEP		
09...	--	825

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
433910107221900 - NOWOOD R AB SV DRAW NR NOWOOD WY (LAT 43 39 10 LONG 107 22 19)		
MAY , 1976		
13...	--	235
SEP		
09...	--	655
434047107182500 - BOX ELDER C AB REDBANK C NR BIG TRAILS WY (LAT 43 40 47 LONG 107 18 25)		
SEP , 1976		
09...	--	750
MAY		
13...	--	410
434228107161700 - REDBANK C TRIB POND NR BIG TRAILS WY (LAT 43 42 28 LONG 107 16 17)		
SEP , 1976		
09...	--	300
434120107173700 - REDBANK C AB MOUTH NR BIG TRAILS WY (LAT 43 41 20 LONG 107 17 37)		
SEP , 1976		
09...	--	1240
434047107182800 - REDBANK C AT MOUTH NR BIG TRAILS WY (LAT 43 40 47 LONG 107 18 28)		
SEP , 1976		
09...	--	2500
434017107194500 - BOX ELDER C AB CHERRY C NR BIG TRAILS WY (LAT 43 40 17 LONG 107 19 45)		
SEP , 1976		
09...	--	1000
434010107193700 - CHERRY C AT MOUTH NR BIG TRAILS WY (LAT 43 40 10 LONG 107 19 37)		
SEP , 1976		
09...	--	1300
MAY		
13...	--	540
434654107195200 - NOWOOD R AB L CANYON C AT BIG TRAILS WY (LAT 43 46 54 LONG 107 19 52)		
MAY , 1976		
13...	--	315
434212107151700 - S F L CANYON C NR BIG TRAILS WY (LAT 43 42 12 LONG 107 15 17)		
SEP , 1976		
10...	--	305

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
434605107183500 - L CANYON C AT UPPER NOWOOD ROAD BR AT BIG TRAILS (LAT 43 46 05 LONG 107 18 35)		
SEP , 1976		
10...	--	690
MAY		
13...	--	220
434657107195100 - L CANYON C AT MOUTH AT BIG TRAILS WY (LAT 43 46 57 LONG 107 19 51)		
MAY , 1976		
13...	--	255
SEP		
10...	--	860
434657107195400 - NOWOOD R BL L CANYON C AT BIG TRAILS WY (LAT 43 46 57 LONG 107 19 54)		
MAY , 1976		
13...	--	260
434752107183200 - CROOKED C AT SPRING C ROAD BR NR BIG TRAILS WY (LAT 43 47 52 LONG 107 18 32)		
SEP , 1976		
10...	--	1420
MAY		
17...	--	900
434722107184000 - CROOKED C TRIB POND NR BIG TRAILS WY (LAT 43 47 22 LONG 107 18 40)		
NOV , 1976		
05...	--	679
MAY		
17...	--	3900
434736107190200 - CROOKED C POND NR BIG TRAILS WY (LAT 43 47 36 LONG 107 19 02)		
MAY , 1976		
17...	--	1200
434802107200000 - CROOKED C AT MOUTH NR BIG TRAILS WY (LAT 43 48 02 LONG 107 20 00)		
SEP , 1976		
10...	--	3000
MAY		
13...	--	1200
434840107211800 - NOWOOD R AB WILLOW C NR BIG TRAILS WY (LAT 43 48 40 LONG 107 21 18)		
SEP , 1976		
10...	--	940
MAY		
13...	--	315
435130107181800 - S F OTTER C AB N F NR BIG TRAILS WY (LAT 43 51 30 LONG 107 18 18)		
SEP , 1976		
12...	--	301

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
435148107183000 - OTTER C AT SPRING C ROAD BR NR BIG TRAILS WY (LAT 43 51 48 LONG 107 18 30)		
SEP , 1976		
12...	--	555
435300107222400 - OTTER C AT MOUTH NR BIG TRAILS WY (LAT 43 53 00 LONG 107 22 24)		
MAY , 1976		
13...	--	195
SEP		
10...	--	1500
435516107231400 - NOWOOD R BL TAYLOR DRAW NR TEN SLEEP WY (LAT 43 55 16 LONG 107 23 14)		
SEP , 1976		
13...	--	790
MAY		
13...	--	290
435516107163700 - SPRING C AB MARYS C NR TEN SLEEP WY (LAT 43 55 16 LONG 107 16 37)		
SEP , 1976		
15...	--	375
435618107173600 - SPRING C BL CAMERON C NR TEN SLEEP WY (LAT 43 56 18 LONG 107 17 36)		
SEP , 1976		
13...	--	596
435453107171700 - ALKALI C TRIB POND NO 2 NR BIG TRAILS WY (LAT 43 54 53 LONG 107 17 17)		
SEP , 1976		
16...	--	413
435556107175700 - ALKALI C NR TEN SLEEP WY (LAT 43 55 56 LONG 107 17 57)		
SEP , 1976		
13...	--	2490
MAY		
18...	--	2950
435612107190000 - SPRING C BL ALKALI C NR TEN SLEEP WY (LAT 43 56 12 LONG 107 19 00)		
SEP , 1976		
13...	--	956
435613107203300 - SPRING C AT SPRING C ROAD BR NR TEN SLEEP WY (LAT 43 56 13 LONG 107 20 33)		
SEP , 1976		
13...	--	1030

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

435727107231700 - SPRING C AT MOUTH NR TEN SLEEP WY (LAT 43 57 27 LONG 107 23 17)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
MAY , 1976		
13...	--	840
SEP		
13...	--	1020

435940107240500 - ALKALI C AT MOUTH NR TEN SLEEP WY (LAT 43 59 40 LONG 107 24 05)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
MAY , 1976		
13...	--	3800

440029107250000 - NOWOOD R AB WARNER GULCH NR TEN SLEEP WY (LAT 44 00 29 LONG 107 25 00)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
13...	--	920
MAY		
13...	--	310

441010107145900 - W TENSLEEP C NR TEN SLEEP WY (LAT 44 10 10 LONG 107 14 59)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
08...	--	<50
MAY		
16...	--	<50

440457107183500 - TENSLEEP C AB LEIGH C NR TEN SLEEP WY (LAT 44 04 57 LONG 107 18 35)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
08...	--	92

440404107211000 - TENSLEEP C AB SALT LICK C NR TEN SLEEP WY (LAT 44 04 04 LONG 107 21 10)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
08...	--	121

440400107223600 - TENSLEEP C AB CANYON C NR TEN SLEEP WY (LAT 44 04 00 LONG 107 22 36)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
08...	--	135

440057107195000 - CANYON C BL OLD MAID GULCH NR TEN SLEEP WY (LAT 44 00 57 LONG 107 19 50)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
09...	--	405

440340107230200 - CANYON C AT MOUTH NR TEN SLEEP WY (LAT 44 03 40 LONG 107 23 02)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
09...	--	405

440307107235600 - TENSLEEP C BL CANYON C NR TEN SLEEP WY (LAT 44 03 07 LONG 107 23 56)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
08...	--	245

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

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                                       SPE-
                                       CIFIC
                                       CON-
                                       DUCT-
                                       ANCE
                              TIME    (MICRO-
                   DATE                MHOS)

440237107251100 - TENSLEEP C AB VICTORIA DITCH DIV NR TEN SLEEP WY (LAT 44 02 37 LONG 107 25 11)

                 SEP , 1976
                  09...         --       335

440217107254700 - TENSLEEP C BL VICTORIA DITCH DIV AT TEN SLEEP WY (LAT 44 02 17 LONG 107 25 47)

                 SEP , 1976
                  09...         --       345

    440210107260700 - TENSLEEP C 0.6MI EAST OF TEN SLEEP WY (LAT 44 02 10 LONG 107 26 07)

                 SEP , 1976
                  09...         --       520

        440211107261500 - UNNAMED POND AT TEN SLEEP WY (LAT 44 02 11 LONG 107 26 15)

                 SEP , 1976
                  09...         --      2380

    440158107263100 - TENSLEEP C 0.3MI EAST OF TEN SLEEP WY (LAT 44 01 58 LONG 107 26 31)

                 SEP , 1976
                  09...         --       610

     440148107270500 - TEN SLEEP C AT MOUTH AT TEN SLEEP WY (LAT 44 01 48 LONG 107 27 05)

                 SEP , 1976
                  08...         --       645

    440205107275300 - NOWOOD R BL TENSLEEP C AT TEN SLEEP WY (LAT 44 02 05 LONG 107 27 53)

                 MAY , 1976
                  13...         --       295
                 SEP



                  13...         --       493

          440427107280400 - SMITH LK NR TEN SLEEP WY (LAT 44 04 27 LONG 107 28 04)

                 MAY , 1976
                  14...         --      1620

         440804107265100 - CAROTHERS LK NR TEN SLEEP WY (LAT 44 08 04 LONG 107 26 51)

                 MAY , 1976
                  14...         --       695

    440640107272080 - SALT TROUGH C AT MOUTH NR TEN SLEEP WY (LAT 44 06 40 LONG 107 27 20)

                 SEP , 1976
                  13...         --       841
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MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

440608107282200 - BROKENBACK C AB S F NR TEN SLEEP WY (LAT 44 06 08 LONG 107 28 22)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
13...	--	510

440541107274000 - S F BROKENBACK C POND NR TEN SLEEP WY (LAT 44 05 41 LONG 107 27 40)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
13...	--	1630

440600107295500 - BROKENBACK C NR MOUTH NR TEN SLEEP WY (LAT 44 06 00 LONG 107 29 55)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
MAY , 1976		
13...	--	1260
SEP		
12...	--	843

440456107312900 - NOWOOD R BL BROKENBACK C NR TEN SLEEP WY (LAT 44 04 56 LONG 107 31 29)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
13...	--	849
MAY		
13...	--	320

440923107280900 - UNNAMED RES AB RENNER RES NR TEN SLEEP WY (LAT 44 09 23 LONG 107 28 09)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
MAY , 1976		
14...	--	3450

441033107300800 - RENNER RES NR HYATTVILLE WY (LAT 44 10 33 LONG 107 30 08)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
MAY , 1976		
18...	--	2950

440730107325300 - BUFFALO C AT MOUTH NR HYATTVILLE WY (LAT 44 07 30 LONG 107 32 53)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
13...	--	3020
MAY		
13...	--	2800

440725107325900 - NOWOOD R BL BUFFALO C NR HYATTVILLE WY (LAT 44 07 25 LONG 107 32 59)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
13...	--	1280
MAY		
13...	--	595

441000107404600 - NINETY-SIX CA BL HEADGATE NR HYATTVILLE WY (LAT 44 10 00 LONG 107 40 46)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
13...	--	940
MAY		
13...	--	315

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

441609107305600 - PAINT ROCK C BL LUMAN C NR HYATTVILLE WY (LAT 44 16 09 LONG 107 30 56)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
MAY , 1976		
14...	--	130

441600107331500 - PAINT ROCK C AB MILITARY C NR HYATTVILLE WY (LAT 44 16 00 LONG 107 33 15)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
SEP , 1976		
12...	--	235
MAY		
14...	--	160

441534107343300 - PAINT ROCK C BL MILITARY C NR HYATTVILLE WY (LAT 44 15 34 LONG 107 34 33)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
SEP , 1976		
12...	--	519
MAY		
14...	--	198

441436107360400 - PAINT ROCK C AB MEDICINE LODGE C AT HYATTVILLE (LAT 44 14 36 LONG 107 36 04)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
MAY , 1976		
14...	--	270
SEP		
12...	--	730

441752107322500 - MEDICINE LODGE C AT DRY MED LDG C NR HYATTVILLE (LAT 44 17 52 LONG 107 32 25)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
MAY , 1976		
14...	--	175
SEP		
12...	--	241

441738107322200 - MEDICINE LODGE C NR HYATTVILLE WY (LAT 44 17 38 LONG 107 32 22)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
MAY , 1976		
14...	--	220
SEP		
12...	--	239

441708107324400 - MEDICINE LODGE C AB BIG BEAR DITCH RET NR HYTVLL (LAT 44 17 08 LONG 107 32 44)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
SEP , 1976		
12...	--	254
MAY		
14...	--	230

441607107340300 - MEDICINE LODGE C BL BIG BEAR DITCH RET NR HYTVLL (LAT 44 16 07 LONG 107 34 03)

DATE	TIME	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
MAY , 1976		
14...	--	390
SEP		
12...	--	392

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

441452107360800 - MEDICINE LODGE C AT HYATTVILLE WY (LAT 44 14 52 LONG 107 36 08)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
12...	--	671
MAY		
14...	--	365

441515107384200 - ALKALI C NR HYATTVILLE WY (LAT 44 15 15 LONG 107 38 42)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
MAY , 1976		
14...	--	2800
SEP		
12...	--	2420

441309107412800 - PAINT ROCK C BL ALKALI C NR HYATTVILLE WY (LAT 44 13 09 LONG 107 41 28)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
MAY , 1976		
14...	--	790
SEP		
12...	--	1130

441158107444600 - NOWOOD R TRIB NR MANDERSON WY (LAT 44 11 58 LONG 107 44 46)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
13...	--	2360
MAY		
13...	--	2880

441237107441100 - NOWOOD R BL PAINT ROCK C NR MANDERSON WY (LAT 44 12 37 LONG 107 44 11)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
13...	--	1200
MAY		
13...	--	390

441558107523400 - NOWOOD R AB HARMONY DITCH DIV NR MANDERSON WY (LAT 44 15 58 LONG 107 52 34)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
13...	--	1120
MAY		
13...	--	445

440540109032900 - GREYBULL R AT PAPPAPOU BUTTE NR MEETEETSE WY (LAT 44 05 40 LONG 109 03 29)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
14...	--	322

440630108572700 - WOOD R AT MOUTH NR MEETEETSE WY (LAT 44 06 30 LONG 108 57 27)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
14...	--	270

440930108522200 - GREYBULL R AT MEETEETSE WY (LAT 44 09 30 LONG 108 52 22)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
MAY , 1976		
20...	--	190
SEP		
14...	--	403

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

441551108472800 - GREYBULL R BL COTTONWOOD C NR MEETEETSE WY (LAT 44 15 51 LONG 108 47 28)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
14...	--	446

442017108410800 - GREYBULL R BL COYOTE CANYON NR MEETEETSE WY (LAT 44 20 17 LONG 108 41 08)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
14...	--	418

442327108345700 - GREYBULL R AT FENTON WY (LAT 44 23 27 LONG 108 34 57)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
14...	--	470

442451108325100 - BENCH CANAL NR FENTON WY (LAT 44 24 51 LONG 108 32 51)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
14...	--	471

442514108293700 - GREYBULL R AT AVENT SCHOOL NR BURLINGTON WY (LAT 44 25 14 LONG 108 29 37)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
14...	--	502

442357108255400 - GREYBULL R AT COUNTY BRIDGE NR BURLINGTON WY (LAT 44 23 57 LONG 108 25 54)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
14...	--	483

442302108161800 - GREYBULL R NR OTTO WY (LAT 44 23 02 LONG 108 16 18)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
14...	--	725

442815108032600 - GREYBULL R AT MOUTH AT GREYBULL WY (LAT 44 28 15 LONG 108 03 26)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
14...	--	956

443215107464500 - SHELL C AT SHELL WY (LAT 44 32 15 LONG 107 46 45)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
11...	--	388

443040108024700 - SHELL C AT MOUTH AT GREYBULL WY (LAT 44 30 50 LONG 108 02 47)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
11...	--	1660

443113108032100 - BIGHORN R NR GREYBULL WY (LAT 44 31 13 LONG 108 03 21)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS)
SEP , 1976		
17...	--	987

MISCELLANEOUS SPECIFIC CONDUCTANCE MEASUREMENTS AT SITES IN THE BIGHORN RIVER BASIN IN WYOMING--Continued

DATE	TIME	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
445113108103100 - BIGHORN R AT BIGHORN LAKE NR KANE WY (LAT 44 51 13 LONG 108 10 31)		
SEP , 1976		
17...	--	976
443039109084800 - SHOSHONE R IN SHOSHONE CANYON NR CODY WY (LAT 44 30 39 LONG 109 08 48)		
SEP , 1976		
16...	--	134
06285100 - SHOSHONE RIVER NEAR LOVELL WYO (LAT 44 50 20 LONG 108 26 00)		
NOV , 1976		
09...	1530	800
OCT		
03...	1200	800
445132108195000 - SHOSHONE R BL SAND DRAW NR LOVELL WY (LAT 44 51 32 LONG 108 19 50)		
SEP , 1976		
16...	--	889

ALBANY COUNTY

410847105585201. Local number, 14N 077W 25dcd01.

LOCATION.--Lat 41°08'47", long 105°58'52", in SE¼SW¼SE¼ sec.25, T.14 N., R.77 W., Hydrologic Unit 10180010. Owner: Wm. D. Embree.

AQUIFER.--Gravel of terrace deposits.

WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 8 in (20 cm), depth 75 ft (22.9 m), cased.

DATUM.--Altitude of land-surface datum is about 7,424 ft (2,263 m). Measuring point: Top of casing 0.90 ft (0.27 m) above land-surface datum.

PERIOD OF RECORD.--July 1948 to September 1953, April 1959 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 24.92 ft (7.60 m) below land-surface datum, Sept. 21, 1951; lowest, 35.78 ft (10.91 m) below land-surface datum, June 3, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
FEB 27	32.48

413816105325601. Local number, 19N 073W 02cdd01.

LOCATION.--Lat 41°38'16", long 105°32'56", in SE¼SE¼SW¼ sec.2, T.19 N., R.73 W., Hydrologic Unit 10180010. Owner: Gil Smith.

AQUIFER.--Forelle Limestone.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter unknown, depth 100 ft (30.4 m), cased.

DATUM.--Altitude of land-surface datum is about 7,300 ft (2,225 m). Measuring point: Bolt hole in pump base, 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--October 1965 to October 1968, March 1970 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.28 ft (17.76 m) below land-surface datum, June 19, 1974; lowest, 71.83 ft (21.89 m) below land-surface datum, May 8, 1968.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
JAN 19	63.70

CAMPBELL COUNTY

444611105295001. Local number, 44N 072W 22cc01.

LOCATION.--Lat 44°46'11", long 105°29'50", in SW¼SW¼ sec.22, T.44 N., R.72 W., Hydrologic Unit 10120201. Owner: Durham Meat Co.

AQUIFER.--Wasatch Formation.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 14 in (36 cm), depth 189 ft (57.6 m), cased.

DATUM.--Altitude of land-surface datum is about 4,890 ft (1,490 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.

PERIOD OF RECORD.--May 1966 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 43.80 ft (13.35 m) below land-surface datum, Oct. 7, 1968; lowest, 47.87 ft (14.59 m) below land-surface datum, Sept. 3, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
NOV 6	46.95
JAN 16	46.97
SEP 3	47.89

CARBON COUNTY

414104106442801. Local number, 20N 083W 28bab01.

LOCATION.--Lat 41°41'04", long 106°44'28", in NW¼NE¼NW¼ sec.28, T.20 N., R.83 W., Hydrologic Unit 10180002. Owner: State of Wyoming.

AQUIFER.--Sand of North Park Formation.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 3 in (8 cm), depth 33 ft (10.0 m), cased.

DATUM.--Altitude of land-surface datum is about 6,762 ft (2,061 m). Measuring point: Top of casing 2.70 ft (0.82 m) above land-surface datum.

PERIOD OF RECORD.--August 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 15.13 ft (4.61 m) below land-surface datum, Nov. 18, 1975; lowest, 22.00 ft (6.71 m) below land-surface datum, Sept. 22, 1961.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER. LEVEL
NOV 18	15.13
FEB 26	15.32
JUN 8	15.46

CONVERSE COUNTY

424229105242901. Local number, 32N 071W 31aaa01.
LOCATION.--Lat 42°42'29", long 105°24'29", in NE¼NE¼NE¼ sec.31, T.32 N., R.71 W., Hydrologic Unit 10180008.
Owner: Mrs. Sallie Edwards.
AQUIFER.--Siltstone of White River Group.
WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 6 in (15 cm), depth 84 ft (25.6 m), cased.
DATUM.--Altitude of land-surface datum is about 4,837 ft (1,474 m). Measuring point: Hole in pump housing, 1.70 ft (0.52 m) above land-surface datum.
PERIOD OF RECORD.--July 1950 to September 1956, May 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.17 ft (3.71 m) below land-surface datum, Dec. 15, 1970; lowest, 20.32 ft (6.19 m) below land-surface datum, July 10, 1950.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
JAN 12	12.95
MAY 17	12.89

CROOK COUNTY

443503104425101. Local number, 53N 065W 18bac01.
LOCATION.--Lat 44°35'03", long 104°42'51", in SW¼NE¼NW¼ sec.18, T.53 N., R.65 W., Hydrologic Unit 10120201.
Owner: National Park Service.
AQUIFER.--Minnekahta Limestone.
WELL CHARACTERISTICS.--Drilled artesian well, diameter 6 in (15 cm), depth 468 ft (142.6 m), cased to 448 ft (136.6 m), open hole below.
DATUM.--Altitude of land-surface datum is about 3,865 ft (1,178 m). Measuring point: Top of casing, 1.10 ft (0.34 m) above land-surface datum.
PERIOD OF RECORD.--July 1955, April 1960, May 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.95 ft (3.64 m) below land-surface datum, Oct. 8, 1975; lowest, 26.10 ft (7.96 m) below land-surface datum, Apr. 23, 1963.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	11.95	JAN 14	12.35
NOV 5	12.13	MAY 17	12.91
DEC 3	12.10	SEP 1	12.26

443459104425[illegible]. Local number, 53N 065W 18bbd02.
LOCATION.--Lat 44°34'59", long 104°42'56", in SE¼NW¼NW¼ sec.18, T.53 N., R.65 W., Hydrologic Unit 10120201.
Owner: National Park Service.
AQUIFER.--Pahasapa Limestone.
WELL CHARACTERISTICS.--Drilled artesion well, diameter 8 in (20 cm), depth 1,341 ft (408.7 m), perforated casing 1,315-1,341 ft (400.8-408.7 m).
DATUM.--Altitude of land-surface datum is about 3,865 ft (1,178 m). Measuring point: Top of casing 2.30 ft (0.70 m) above land-surface datum.
PERIOD OF RECORD.--September 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 3.90 ft (1.19 m) below land-surface datum, Sept. 1, 1976; lowest, 22.24 ft (6.78 m) below land-surface datum, May 8, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL
NOV 5	12.83	MAY 19	12.61
JAN 14	12.70	SEP 1	12.75

FREMONT COUNTY

431327108311101. Local number, 03N 003E 21ada02.
LOCATION.--Lat 43°13'27", long 108°31'11", in NW¼SE¼NE¼ sec.21, T.3 N., R.3 E., Hydrologic Unit 10080005.
Owner: H. W. Roland.
AQUIFER.--Sandstone of Wind River Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 6 in (15 cm), depth 425 ft (129.5 m), cased to 403 ft (122.8 m).
DATUM.--Altitude of land-surface datum is about 5,273 ft (1,607 m). Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--December 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 146.06 ft (44.52 m) below land-surface datum, Dec. 1, 1950; lowest, 171.48 ft (52.27 m) below land-surface datum, Jan. 12, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	164.54	JAN 12	171.48
OCT 31	166.79	APR 20	154.32
DEC 5	167.30	JUN 30	155.34

FREMONT COUNTY--Continued

431253108284401. Local Number, 03N 003E 25bbb01.
LOCATION.--Lat 43°12'53", long 108°28'44", in NW¼NW¼NW¼ sec.25, T.3 N., R.3 E., Hydrologic Unit 10080005.
Owner: U.S. Bureau of Reclamation.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 3 in (8 cm), depth 28 ft (8.5 m), casing perforated 0-28 ft (0-8.5 m).
DATUM.--Altitude of land-surface datum is about 5,150 ft (1,570 m). Measuring point: Top of casing 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--October 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 1.81 ft (0.55 m) below land-surface datum, Aug. 29, 1974; lowest, 15.38 ft (4.69 m) below land-surface datum, May 10, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 2	2.86	APR 20	13.73
JAN 12	13.32	JUN 30	10.12

GOSHEN COUNTY

413816104094901. Local number, 19N 061W 02ccd01.
LOCATION.--Lat 41°38'16", long 104°09'49", in SE¼SW¼SW¼ sec.2, T.19 N., R.61 W., Hydrologic Unit 10180012.
Owner: City of LaGrange.
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (10 cm), depth 30 ft (9.1 m), galvanized casing.
DATUM.--Altitude of land-surface datum is 4,577.2 ft (1,395.1 m). Measuring point: Top of casing, 0.90 ft (0.27 m) above land-surface datum.
PERIOD OF RECORD.--May 1943 to July 1943, April 1949 to October 1969, May 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.26 ft (3.43 m) below land-surface datum, Aug. 29, 1973; lowest, 20.65 ft (6.29 m) below land-surface datum, Oct. 6, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
MAR 18	15.44
JUN 2	16.66
SEP 15	20.13

413813104115501. Local number, 19N 061W 04cdd02.
LOCATION.--Lat 41°38'13", long 104°11'55", in SE¼SE¼SW¼ sec.4, T.19 N., R.61 W., Hydrologic Unit 10180012.
Owner: Hugh Stemler.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 4 ft (1.2 m), depth 33 ft (10.1 m), cased.
DATUM.--Altitude of land-surface datum is about 4,557 ft (1,389 m). Measuring point: Top of casing, north side, 0.20 ft (0.06 m) above land-surface datum.
PERIOD OF RECORD.--June 1943, November 1948 to October 1969, May 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.07 ft (1.24 m) below land-surface datum, June 4, 1949; lowest, 13.40 ft (4.08 m) below land-surface datum, Nov. 7, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
MAR 18	8.29
SEP 15	10.67

415902104031601. Local number, 23N 060W 10aac01.
LOCATION.--Lat 41°59'02", long 104°03'16", in SW¼NE¼NE¼ sec.10, T.23 N., R.60 W., Hydrologic Unit 10180009.
Owner: French Ditch Irrigation Co.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (61 cm) depth 50 ft (15.2 m), cased.
DATUM.--Altitude of land-surface datum is 4,030.8 ft (1,228.6 m). Measuring point: Top of casing 0.50 ft (0.15 m) above land-surface datum.
PERIOD OF RECORD.--September 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 4.34 ft (1.32 m) below land-surface datum, May 20, 1971; lowest, 16.43 ft (5.01 m) below land-surface datum, Aug. 10, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
NOV 3	8.33
JAN 5	8.88
MAY 5	8.58

GOSHEN COUNTY--Continued

420449104133401. Local number, 24N 061W 05cbb02.
LOCATION.--Lat 42°04'49", long 104°13'34", in NW¼NW¼SW¼ sec.5, T.24 N., R.61 W., Hydrologic Unit 10180009.
Owner: U.S. Geological Survey.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1 in (3 cm), depth 27 ft (8.2 m), cased to 27 ft (8.2 m), sand point.
DATUM.--Altitude of land-surface datum is about 4,121 ft (1,256 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--October 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.28 ft (5.57 m) below land-surface datum, July 10, 1973; lowest, 26.20 ft (7.99 m) below land-surface datum, Apr. 18, 1955.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
NOV 3	21.84
JAN 13	23.84
MAY 5	24.55

420426104100601. Local number, 24N 061W 11bbb01.
LOCATION.--Lat 42°04'26", long 104°10'06", in NW¼NW¼NW¼ sec.11, T.24 N., R.61 W., Hydrologic Unit 10180009.
Owner: Bill Ring.
AQUIFER.--Terrace deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (46 cm), depth 118 ft (36.0 m), cased with 10 gauge steel.
DATUM.--Altitude of land-surface datum is about 4,207 ft (1,282 m). Measuring point: Top edge of hole in pump base, 0.75 ft (0.23 m) above land-surface datum.
PERIOD OF RECORD.--August 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 69.32 ft (21.13 m) below land-surface datum, Oct. 8, 1974; lowest, 81.86 ft (24.95 m) below land-surface datum, Aug. 30, 1962.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
NOV 3	70.99
JAN 3	73.23
MAY 5	76.81

420626104114501. Local number, 25N 061W 28dbc01.
LOCATION.--Lat 42°06'26", long 104°11'45", in SW¼NW¼SE¼ sec.28, T.25 N., R.61 W., Hydrologic Unit 10180009.
Owner: M. W. Berry
AQUIFER.--Gravel of terrace deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (61 m), depth 108 ft (32.9 m) cased, gravel packed.
DATUM.--Altitude of land-surface datum is 4,223.1 ft (1,287.2 m). Measuring point: Top of casing, 0.90 ft (0.27 m) above land-surface datum.
PERIOD OF RECORD.--May 1943, October 1948 to May 1952, June 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 37.48 ft (11.42 m) below land-surface datum, Oct. 16, 1951; lowest, 64.65 ft (19.71 m) below land-surface datum, July 19, 1943.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
NOV 3	49.58
MAY 5	54.13

421031104170001. Local number, 25N 062W 02bbb01.
LOCATION.--Lat 42°10'31", long 104°17'00", in NW¼NW¼NW¼ sec.2, T.25 N.; R.62 W., Hydrologic Unit 10180009.
Owner: U.S. Geological Survey.
AQUIFER.--Terrace deposits.
WELL CHARACTERISTICS.--Bored observation water-table well, diameter 1 in (3 cm), depth 28 ft (8.5 m), cased.
DATUM.--Altitude of land-surface datum is about 4,230 ft (1,289 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--June 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 9.15 ft (2.79 m) below land-surface datum, Sept. 9, 1966; lowest, 12,99 ft (3.96 m) below land-surface datum, Apr. 7, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
NOV 4	10.73
JAN 13	11.72
MAY 4	12.27

GOSHEN COUNTY--Continued

420753104204701. Local number, 25N 062W 19aab01
LOCATION.--Lat 42°07'53", long 104°20'47", in NW¼NE¼NE¼ sec.19, T.25 N., R.62 W., Hydrologic Unit 10180009.
Owner: Lester C. Stroud
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (46 cm), depth 83 ft (25.3 m), cased.
DATUM.--Altitude of land-surface datum is about 4,172 ft (1,272 m). Measuring point: Top of pump base, 0.60 ft (0.18 m) above land-surface datum.
PERIOD OF RECORD.--October 1948 to September 1953, April 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 18.07 ft (5.51 m) below land-surface datum, Sept. 26, 1952; lowest, 27.23 ft (8.30 m) below land-surface datum, May 21, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
NOV 4	20.37
JAN 13	24.64
MAY 4	26.58

420900104262201. Local number, 25N 063W 09ccb01.
LOCATION.--Lat 42"09'00", long 104°26'22", in NW¼SW¼SW¼ sec.9, T.25 N., R.63 W., Hydrologic Unit 10180009.
Owner: Emery Bright.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (61 cm), depth 61 ft (18.6 m), galvanized casing, gravel packed.
DATUM.--Altitude of land-surface datum is 4,196.8 ft (1,279.2 m). Measuring Point: Top of casing, 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--August 1943, November 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 16.34 ft (4.98 m) below land-surface datum, Sept. 26, 1952; lowest, 24.85 ft (7.57 m) below land-surface datum, Oct. 8, 1962.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
NOV 4	20.33
JAN 12	21.36
MAY 4	21.92

421357104165001. Local number, 26N 062W 14bba01.
LOCATION.--Lat 42°13'57", long 104°16'50", in NE¼NW¼NW¼ sec.14, T.26 N., R.62 W., Hydrologic Unit 10180009.
Owner: Arthur Damrow.
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (46 cm), reported depth 39 ft (11.9 m), galvanized iron casing, gravel packed.
DATUM.--Altitude of land-surface datum is 4,274.4 ft (1,302.8 m). Measuring point: Hole in wood cover, 0.20 ft (0.06 m) above land-surface datum.
PERIOD OF RECORD.--October 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.78 ft (3.29 m) below land-surface datum, June 25, 30, 1971; lowest, 18.03 ft (5.50 m) below land-surface datum, Sept. 21, 1961.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
NOV 4	13.65
JAN 13	12.91
MAY 4	12.82

421044104263201. Local number, 26N 063W 32dac01.
LOCATION.--Lat 42°10'44", long 104°26'32", in SW¼NE¼SE¼ sec.32, T.26 N., R.63 W., Hydrologic Unit 10180009.
Owner: Joseph Spikner.
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (46 cm), depth 80 ft (24.4 m), cased to 80 ft (24.4 m).
DATUM.--Altitude of land-surface datum is 4,204.6 ft (1,281.6 m). Measuring point: Top of casing through hole in pump base at land-surface datum.
PERIOD OF RECORD.--October 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 17.97 ft (5.48 m) below land-surface datum, Sept. 26, 1952; lowest, 28.51 ft (8.69 m) below land-surface datum, Oct. 1, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
NOV 4	22.09
JAN 12	27.33
MAY 5	24.98

GOSHEN COUNTY--Continued

421216104332301. Local number, 26N 064W 28bbb01.
LOCATION.--Lat 42°12'16", long 104°33'23", in NW¼NW¼NW¼ sec.28, T.26 N., R.64 W., Hydrologic Unit 10180009.
Owner: National Park Service.
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter 18 in (46 cm), depth 29 ft (8.8 m), cased to 29 ft (8.8 m).
DATUM.--Altitude of land-surface datum is 4,245.9 ft (1,294.2 m). Measuring point: Top of casing, 1.20 ft (0.37 m) above land-surface datum.
PERIOD OF RECORD.--July 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 10.72 ft (3.27 m) below land-surface datum, May 15, 1973; lowest, 17.80 ft (5.43 m) below land-surface datum, Oct. 16, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	17.10	JAN 5	17.10	APR 5	17.10	JUL 6	16.72
NOV 4	17.10	FEB 4	16.94	MAY 5	17.00	AUG 4	16.02
DEC 4	17.00	MAR 4	17.00	JUN 4	16.50	SEP 4	16.15

421205104333001. Local number, 26N 064W 29ada01.
LOCATION.--Lat 42°12'05", long 104°33'30", in NE¼SE¼NE¼ sec.29, T.26 N., R.64 W., Hydrologic Unit 10180011.
Owner: National Park Service.
AQUIFER.--Gravel of alluvium.
WELL CHARACTERISTICS.--Dug observation water-table well, diameter 36 in (91 cm), depth 43 ft (13.1 m), cribbed with rock.
DATUM.--Altitude of land-surface datum is 4,248.8 ft (1,295.0 m). Measuring point: Top of platform, 0.80 ft (0.24 m) above land-surface datum.
PERIOD OF RECORD.--September 1942 to February 1943, August 1946 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.40 ft (3.78 m) below land-surface datum, May 17, 1971; lowest, 19.17 ft (5.84 m) below land-surface datum, Feb. 20, 1954.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 8	18.40	JAN 5	18.40	APR 5	18.20	JUL 6	17.53
NOV 4	18.20	FEB 4	18.06	MAY 5	18.00	AUG 4	17.60
DEC 4	18.12	MAR 4	18.15	JUN 4	17.30	SEP 4	17.97

JOHNSON COUNTY

442427106494001. Local number, 51N 083W 10acb01.
LOCATION.--Lat 44°24'27", long 106°49'40", in NW¼SW¼NE¼ sec.10, T.51 N., R.83 W., Hydrologic Unit 10090206.
Owner: Niels Nielson.
AQUIFER.--Kingsbury Conglomerate member of Wasatch Formation.
WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 6 in (15 cm), depth 275 ft (83.8 m), cased to 205 ft (62.5 m).
DATUM.--Altitude of land-surface datum is about 5,240 ft (1,597 m). Measuring point: Top of casing, 1.60 ft (0.49 m) above land-surface datum.
PERIOD OF RECORD.--January 1960 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 30.90 ft (9.42 m) below land-surface datum, Apr. 11, 1960; lowest, 35.86 ft (10.93 m) below land-surface datum, May 28, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
FEB 25	35.15
SEP 23	35.33

LARAMIE COUNTY

410322104071701. Local number, 13N 060W 31aaa01.
LOCATION.--Lat 41°03'22", long 104°07'17", in NE¼NE¼NE¼ sec.31, T.13 N., R.60 W., Hydrologic Unit 101290015.
Owner: W. T. Young, Jr.
AQUIFER.--Siltstone of Brule Formation.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 20 in (51 cm), depth 100 ft (30.5 m), galvanized iron casing.
DATUM.--Altitude of land-surface datum is 5,184.8 ft (1,580.3 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--November 1940 to October 1969, September 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.10 ft (10.70 m) below land-surface datum, Mar. 28, 1974; lowest, 43.93 ft (13.39 m) below land-surface datum, Aug. 25, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
MAR 9	36.60
SEP 15	43.67

LARAMIE COUNTY--Continued

410534105002401. Local number, 13N 068W 16dbd01.
LOCATION.--Lat 41°05'34", long 105°00'24", in SE¼NW¼SE¼ sec.16, T.13 N., R.68 W., Hydrologic Unit 10190008.
Owner: City of Cheyenne.
AQUIFER.--Gravel of Ogallala Formation.
WELL CHARACTERISTICS.--Drilled municipal water-table well, diameter 10 to 8 in (25 to 20 cm), depth 300 ft (91.4 m), cased.
DATUM.--Altitude of land-surface datum is 6,641.9 ft (2,024.5 m). Measuring point: Top of auxiliary pipe, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--September 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 104.16 ft (31.75 m) below land-surface datum, Nov. 30, 1949; lowest, 148.69 ft (45.32 m) below land-surface datum, Jan. 14, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
JAN 29	146.51
MAR 2[illegible]	144.35

411238104070801. Local number, 14N 060W 05bcb01.
LOCATION.--Lat 41°12'38", long 104°07'08", in NW¼SW¼NW¼ sec.5, T.14 N., R.60 W., Hydrologic Unit 10190015.
Owner: C. C. Gross.
AQUIFER.--Siltstone of Brule Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 18 in (46 cm), reported depth 100 ft (30.5 m), cased.
DATUM.--Altitude of land-surface datum is about 5,082 ft (1,549 m). Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--October 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 29.40 ft (8.96 m) below land-surface datum, July 9, 10, 1967; lowest, 56.62 ft (17.26 m) below land-surface datum, July 30, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Highest water level for the day, from recorder graph

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5	39.57	39.44	37.83	36.70	36.06	35.52	35.98	35.14	37.42	44.91	54.10	45.16
10	c39.91	39.21	37.56	36.60	35.90	35.36	35.51	c36.27	44.80	54.61	55.62	43.95
15	39.72	38.93	37.40	36.47	35.79	35.35	35.70	c36.32	39.66	47.26	48.55	42.83
20	39.68	38.69	37.24	36.41	35.77	35.26	35.49	c36.28	52.84	47.06	56.42	42.12
25	40.06	38.39	37.05	36.26	35.67	35.14	35.32	c37.34	45.01	46.70	46.59	42.38
EOM	39.69	38.06	36.81	36.13	35.53	35.12	35.27	37.20	43.92	47.14	50.07	42.19

WTR YEAR 1976 MAX 35.07 APR 30, 1976 MIN 56.62 July 30, 1976

c Nearby well being pumped.

411142104034301. Local number, 14N 060W 11bcc01.
LOCATION.--Lat 41°11'42", long 104°03'43", in SW¼SW¼NW¼ sec.11, T.14 N., R.60 W., Hydrologic Unit 10190015.
Owner: M. L. Larson.
AQUIFER.--Sand and gravel of alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 24 in (61 cm), reported depth 60 ft (18.3 m), cased.
DATUM.--Altitude of land-surface datum is about 5,023 ft (1,531 m). Measuring point: Top of casing, 0.40 ft (0.12 m) above land-surface datum.
PERIOD OF RECORD.--March 1943 to March 1975 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 13.16 ft (4.01 m) below land-surface datum, Apr. 11, 1949; lowest, 22.16 ft (6.75 m) below land-surface datum, Oct. 17, 1957.

411034104554001. Local number, 14N 067W 18ddc01.
LOCATION.--Lat 41°10'34", long 104°55'40", in SW¼SE¼SE¼ sec.18, T.14 N., R.67 W., Hydrologic Unit 10190009.
Owner: City of Cheyenne.
AQUIFER.--Gravel of Brule Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 12 in (30 cm), depth 229 ft (69.8 m), cased.
DATUM.--Altitude of land-surface datum is about 6,248 ft (1,904 m). Measuring point: Top of casing, 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--May 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 12.48 ft (3.80 m) below land-surface datum, Sept. 26, Oct. 28, 1957; lowest, 34.15 ft (10.41 m) below land-surface datum, Sept. 4, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

Highest water level for the day, from recorder graph

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
5		22.15	21.54	22.03			22.49	24.05	25.68	26.12	26.26	24.92
10	25.61	22.24	21.78	22.00			22.65	25.22	26.57	26.41	24.89	24.73
15	24.91	21.89	22.47	21.99			22.59	25.76	25.48	25.68	25.87	24.69
20	24.35	21.67	22.31	22.09		22.07	22.73	25.19	25.58	26.22	26.06	24.45
25	22.95	21.38	22.18	22.05		22.03	25.25	24.30	27.30	27.14	24.40	24.04
EOM	22.50	21.34	22.12			22.45	23.90	24.47	26.94	26.54	24.97	23.52

WTR YEAR 1976 MAX 21.83 MAR 19, 1976 MIN 27.58 JUNE 27, 1976

LARAMIE COUNTY--Continued

411050104584701. Local number, 14N 068W 14cbb01.
LOCATION.--Lat 41°10'50", long 104°58'47", in NW¼NW¼SW¼ sec.14, T.14N., R.68 W., Hydrologic Unit 10190009.
Owner: City of Cheyenne.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in (30 cm), depth 188 ft (57.3 m), cased.
DATUM.--Altitude of land-surface datum is about 6,310 ft (1,923 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--September 1941 to February 1948, February 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 7.09 ft (2.16 m) below land-surface datum, Feb. 26, 1944; lowest, 38.10 ft (11.61 m) below land-surface datum, Sept. 12, 1961.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
MAR 16	19.67

410836105002801. Local number, 14N 068W 33abc01.
LOCATION.--Lat 41°08'36", long 105°00'28", in SW¼NW¼NE¼ sec.33, T.14 N., R.68 W., Hydrologic Unit 10190009.
Owner: City of Cheyenne.
AQUIFER.--Gravel of Ogallala Formation.
WELL CHARACTERISTICS.--Drilled municipal water-table well, diameter 10 in (25 cm), depth 230 ft (70.1 m), perforated casing.
DATUM.--Altitude of land-surface datum is about 6,568 ft (2,002 m). Measuring point: Top of auxiliary pipe, south side of well, 2.30 ft (0.70 m) above land-surface datum.
PERIOD OF RECORD.--January 1947 to September 1970, April 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 120.16 ft (36.62 m) below land-surface datum, Feb. 11, 1950; lowest, 192.56 ft (58.69 m) below land-surface datum, July 5, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
JAN 29	162.71
MAR 19	156.60

411750104510901. Local number, 15N 067W 02dba01.
LOCATION.--Lat 41°17'50", long 104°51'09", in NE¼NW¼SE¼ sec.2, T.15 N., R.67 W., Hydrologic Unit 10190015.
Owner: Ervin A. Mueller.
AQUIFER.--Gravel of Ogallala Formation.
WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter 16 in (41 cm), depth 182 ft (55.5 m), cased, perforated 78-84 ft (23.8-25.6 m), 123-132 ft (37.5-40.2 m), 139-152 ft (42.4-46.3 m).
DATUM.--Altitude of land-surface datum is about 6,240 ft (1,902 m). Measuring point: Hole in side of casing, at land-surface datum.
PERIOD OF RECORD.--June 1961 to December 1970, September 1972, May 1975 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 72.14 ft (21.99 m) below land-surface datum, May 5, 1964; lowest, 77.06 ft (23.49 m) below land-surface datum, Oct. 1, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
MAR 23	72.63

NATRONA COUNTY

432633106115201. Local number, 40N 078W 15aab01.
LOCATION.--Lat 43°26'33", long 106°11'52", in NW¼NE¼NE¼ sec.15, T.40 N., R.78 W., Hydrologic Unit 10090204.
Owner: Town of Edgerton.
AQUIFER.--Mesaverde (?) Formation.
WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 7 in (18 cm), depth 317 ft (96.6 m), cased.
DATUM.--Altitude of land-surface datum is about 5,080 ft (1,548 m). Measuring point: Top of casing, 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--April 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 73.62 ft (22.44 m) below land-surface datum, Dec. 21, 1965; lowest, 82.22 ft (25.06 m) below land-surface datum, Oct. 20, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL	DATE	WATER LEVEL
OCT 20	82.22	JAN 16	78.32
NOV 13	78.17	MAY 26	78.44

NIOBRARA COUNTY

424038104044101. Local number, 31N 060W 09bd01.
LOCATION.--Lat 42°40'38", long 104°04'41", in SE¼NW¼ sec.9, T.31 N., R.60 W., Hydrologic Unit 10150002. Owner: U.S. Geological Survey.
AQUIFER.--Arikaree Formation.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.5 in (3.8 cm), depth 110 ft (33.5 m), cased to 20 ft (6.1 m), open hole below.
DATUM.--Altitude of land-surface datum is about 4,760 ft (1,451 m). Measuring point: Base of pump at land-surface datum.
PERIOD OF RECORD.--May 1962 to October 1969, June 1972 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.84 ft (6.66 m) below land-surface datum, Apr. 22, 1963; lowest, 26.00 ft (7.92 m) below land-surface datum, July 31, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

No measurements in 1976.

423940104031201. Local number, 31N 060W 15da01.
LOCATION.--Lat 42°39'40", long 104°03'12", in NE¼SE¼ sec.15, T.31 N., R.60 W., Hydrologic Unit 10150002. Owner: U.S. Geological Survey.
AQUIFER.--Arikaree Formation.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.5 in (3.8 cm), depth 110 ft (33.5 m), cased.
DATUM.--Altitude of land-surface datum is about 4,740 ft (1,445 m). Measuring point: Top of casing, 3.90 ft (1.19 m) above land-surface datum.
PERIOD OF RECORD.--September 1962 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 35.34 ft (10.77 m) below land-surface datum, Mar. 21, 1974; lowest, 37.05 ft (11.29 m) below land-surface datum, Oct. 13, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
MAR 16	35.81

424553104263401. Local number, 32N 063W 08ac06.
LOCATION.--Lat 42°45'53", long 104°26'34", in SW¼NE¼ sec.8, T.32 N., R.63 W., Hydrologic Unit 10150002. Owner: John White.
AQUIFER.--Arikaree Formation.
WELL CHARACTERISTICS.--Drilled domestic water-table well, diameter not available, depth 62 ft (18.9 m). No casing information.
DATUM.--Altitude of land-surface datum is about 5,030 ft (1,533 m). Measuring point: Hole in pump base at land-surface datum.
PERIOD OF RECORD.--May 1962 to October 1969, June 1972 to October 1974 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 19.59 ft (5.97 m) below land-surface datum, May 29, 1974; lowest, 44.10 ft (13.44 m) below land-surface datum, Oct. 13, 1964.

424203104175801. Local number, 32N 062W 34cc01.
LOCATION.--Lat 42°42'03", long 104°17'58", in SW¼SW¼ sec.34, T.32 N., R.62 W., Hydrologic Unit 10150002. Owner: Joe Pfister.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (20 cm), depth 28 ft (8.5 m), cased.
DATUM.--Altitude of land-surface datum is about 4,860 ft (1,481.3 m). Measuring point: Top of casing, 1.90 ft (0.58 m) above land-surface datum.
PERIOD OF RECORD.--May 1960 to October 1974 (discontinued).
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 2.99 ft (0.91 m) below land-surface datum, May 28, 1962; lowest, 6.89 ft (2.10 m) below land-surface datum, Aug. 30, 1970.

424232104261001. Local number, 32N 063W 33bbb01.
LOCATION.--Lat 42°42'32", long 104°26'10", in NW¼NW¼NW¼ sec.33, T.32 N., R.63 W., Hydrologic Unit 10150002. Owner: Earl Quigley.
AQUIFER.--Sandstone of Arikaree Formation.
WELL CHARACTERISTICS.--Drilled test hole for irrigation water-table well, diameter 6 in (15 cm), depth 205 ft (62.5 m), cased to 10 ft (3 m).
DATUM.--Altitude of land-surface datum is about 4,990 ft (1,521 m). Measuring point: Top of casing at land-surface datum.
PERIOD OF RECORD.--November 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 40.25 ft (12.27 m) below land-surface datum, June 26, 1972; lowest, 42.48 ft (12.95 m) below land-surface datum, Dec. 15, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
MAR 16	40.45

PLATTE COUNTY

415730104585601. Local number, 23N 068W 15ddd01.
LOCATION.--Lat 41°57'30", long 104°58'56", in SE¼SE¼SE¼ sec.15, T.23 N., R.68 W., Hydrologic Unit 10180011.
Owner: U.S. Bureau of Reclamation.
AQUIFER.--Arikaree Formation.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 1.75 in (4 cm), depth 602 ft (183.5 m), cased to 232 ft (70.7 m).
DATUM.--Altitude of land-surface datum is 5,087.8 ft (1,550.8 m). Measuring point: Top of casing, 2.90 ft (0.88 m) above land-surface datum.
PERIOD OF RECORD.--December 1958 to December 1970, September 1972, March 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 52.15 ft (15.90 m) below land-surface datum, Sept. 13, 1960; lowest, 71.12 ft (21.68 m) below land-surface datum, June 21, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
NOV 11	59.71
JAN 12	60.69

420441104585801. Local number, 24N 068W 03dad01.
LOCATION.--Lat 42°04'41", long 104°58'58", in SE¼NE¼SE¼ sec.3, T.24 N., R.68 W., Hydrologic Unit 10180011.
Owner: U.S. Bureau of Reclamation.
AQUIFER.--Arikaree Formation.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 2 in (5 cm), depth 600 ft (182.9 m), cased, screened.
DATUM.--Altitude of land-surface datum is 4,713.07 ft (1,436.54 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--October 1958 to December 1970, September 1972, March 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 11.86 ft (3.61 m) below land-surface datum, Sept. 19, 1972; lowest, 17.31-ft (5.28 m) below land-surface datum, June 21, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
NOV 4	13.21
JAN 10	13.92

SHERIDAN COUNTY

443915106352202. Local number, 54N 081W 14bc02.
LOCATION.--Lat 44°39'15", long 106°35'22", in SW¼NW¼ sec.14, T.54 N., R.81 W., Hydrologic Unit 10090206.
Owner: Ulm School.
AQUIFER.--Coal of Wasatch Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (10 cm), depth 121 ft (36.9 m). Casing information not available.
DATUM.--Altitude of land-surface datum is about 4,500 ft (1,372 m). Measuring point: Hole in plate over casing, 1.30 ft (0.40 m) above land-surface datum.
PERIOD OF RECORD.--June 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 58.86 ft (17.94 m) below land-surface datum, Apr. 20, 1965; lowest, 64.00 ft (19.51 m) below land-surface datum, July 18, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

DATE	WATER LEVEL
DEC 18	60.54
JAN 15	60.53
SEP 15	59.10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT)	SAMP-LING DEPTH (FT)	INSTAN-TANEOUS DIS-CHARGE (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)
				BIGHORN COUNTY					
441114107280700	49N 088W 29DAC01	374FLTD	GW	75-10-07	--	2287	--	--	--
441452107362800	49N 090W 01ACD01	--	GW	76-05-14	--	--	--	--	--
441430107370901	49N 090W 01CCC01	--	GW	76-09-13	--	--	--	--	--
441439107362800	49N 090W 01DBD01	--	SP	76-05-14	--	--	--	--	--
441302107443701	49N 090W 14DAA01	--	GW	76-05-14	--	--	--	--	--
441309107411700	49N 090W 17ACD01	--	GW	76-05-14	--	--	--	--	--
441044107411501	49N 090W 32ABD01	--	GW	76-09-15	--	--	--	--	--
441503107472601	49N 091W 04ACB01	--	GW	76-09-13	--	--	--	--	--
441513107493501	49N 091W 06AAB01	--	GW	76-09-13	--	--	--	--	--
441750107322700	50N 089W 21AAA01	--	GW	76-05-12	--	--	--	--	--
441616107154700	50N 089W 26CAD01	--	GW	76-05-12	--	--	--	--	--
441609107315600	50N 089W 27CDC01	--	GW	76-05-12	--	--	--	--	--
441614107331700	50N 089W 28CBC01	--	GW	76-05-12	--	--	--	--	--
441538107341301	50N 089W 32DBB01	--	GW	76-09-10	--	--	--	--	--
441606107550701	50N 092W 33BAA01	--	GW	76-09-13	--	--	--	--	--
441606107531401	50N 092W 35BBB01	--	GW	76-09-13	--	--	--	--	--
442513108105401	51N 094W 05BDD01	--	GW	76-09-15	--	--	--	--	--
442431108113901	51N 094W 07ADC01	--	GW	76-09-15	--	--	--	--	--
442502108201301	51N 095W 06CDB01	--	GW	76-09-15	--	--	--	--	--
442415108125401	51N 095W 12DBC01	--	GW	76-09-15	--	--	--	--	--
442318108161101	51N 095W 15CCB01	111ALVM	GW	76-05-19	--	24	--	--	--
442318108161100	51N 095W 15CCB02	--	GW	76-05-19	--	124	--	--	--
442312108151200	51N 095W 15DDC01	--	GW	76-05-19	--	--	--	--	--
442252108163901	51N 095W 21ACA01	--	GW	76-09-15	--	--	--	--	--
442503108245100	51N 096W 05DDA01	--	GW	76-05-19	--	--	--	--	--
442410108260000	51N 096W 07DDA01	--	GW	76-05-19	--	--	--	--	--
442422108254600	51N 096W 08CBA01	--	GW	76-05-19	--	--	--	--	--
442303108204201	51N 096W 24BAB01	--	GW	76-09-15	--	--	--	--	--
442303108204202	51N 096W 24BAB02	--	GW	76-09-15	--	--	--	--	--
442522108285901	51N 097W 02BDD01	--	GW	76-09-15	--	--	--	--	--
442448108273701	51N 097W 12AB 01	--	GW	76-09-15	--	--	--	--	--
442801108045001	52N 093W 19BDA01	--	GW	76-09-15	--	--	--	--	--
442745108050601	52N 093W 19CBD01	--	GW	76-09-15	--	--	--	--	--
442703108060000	52N 094W 25ACC01	--	GW	76-05-19	--	--	--	--	--
442700108060400	52N 094W 25CAA01	--	GW	76-05-19	--	--	--	--	--
442650108244000	52N 096W 28CBC01	--	GW	76-05-19	--	--	--	--	--
442726108254300	52N 096W 29BBA01	--	GW	76-05-19	--	--	--	--	--
442548108255300	52N 096W 32CCB01	--	GW	76-05-19	--	--	--	--	--
				CAMPBELL COUNTY					
440900105062501	48N 069W 11DC 01	125FRUN	GW	76-07-20	1500	420	--	--	1650
440750105073501	48N 069W 22AC 01	125FRUN	GW	76-07-20	1000	400	--	--	1780
440820105180001	48N 070W 17BC 01	125FRUN	GW	76-07-27	1000	300	--	--	2450
440815105503501	48N 075W 14BD 01	124WSTC	GW	76-07-27	1700	195	--	--	510
441040105520001	49N 075W 34CA 01	124WSTC	GW	76-07-21	0900	515	--	--	993
441040105520002	49N 075W 34CA 02	124WSTC	GW	76-07-21	1400	360	--	--	680
441749105221901	50N 071W 27AAC01	--	GW	75-11-18	1330	--	--	--	5000
441716105224901	50N 071W 27BAD01	--	GW	75-11-18	1600	--	--	--	5500
441717105232701	50N 071W 28AAC01	--	GW	76-05-24	1500	--	--	--	1550
441628105240803	50N 071W 33BAC03	--	GW	75-11-17	1410	--	--	--	5000
442400105260001	50N 072W 14AAA01	--	GW	76-05-20	1400	--	--	--	825
		--	GW	76-05-26	1400	--	--	--	825
441808105305001	50N 072W 21AAC01	--	GW	76-05-05	1500	--	--	--	--
441808105305002	50N 072W 21AAC02	--	GW	76-05-26	0945	--	--	--	3000
441912105304203	50N 072W 21AAC03	--	GW	76-05-25	1330	--	--	--	950
442515105253001	50N 072W 26AAC01	--	GW	76-05-26	0945	--	--	--	4000
441700105293201	50N 072W 26AC 01	124WSTC	GW	76-07-06	1600	280	280	--	1220
442530105253001	50N 072W 26BBB01	--	GW	76-05-26	0830	--	--	--	3000
441700105310001	50N 072W 28AB 01	124WSTC	GW	76-08-13	1100	232	--	--	3100
441615105300001	50N 072W 34AA 01	124WSTC	GW	76-07-06	1200	1106	1106	--	604
441800105320001	50N 073W 01AA 01	--	GW	76-08-13	1300	--	--	--	3000
441836105371201	50N 073W 27BCB01	--	GW	76-05-25	1030	--	--	--	1700
443115105422901	52N 074W 01BA 01	125FRUN	GW	76-07-22	1400	--	--	--	4080
443412105134501	53N 070W 13AA 01	125FRUN	GW	76-07-05	1700	810	810	.20	1240
443345105403001	53N 073W 20BD 01	125FRUN	GW	76-07-23	1100	--	--	--	1500
443200105431001	53N 074W 35AB 01	125FRUN	GW	76-07-22	1100	210	--	--	3750
443345105591201	53N 076W 22AB 01	124WSTC	GW	76-07-12	1400	1050	--	--	1260
443745106000001	54N 076W 27BC 01	124WSTC	GW	76-07-26	1400	695	--	--	1650
445151105460012	56N 074W 04AA 12	--	GW	76-08-11	1400	--	--	--	1750
445150105450001	56N 074W 04CB 01	125FRUN	GW	76-08-11	1200	3850	--	--	1750
444748105565401	56N 076W 25CB 01	125FRUN	GW	76-07-08	1200	850	850	1.0	3800
445515105194501	57N 070W 19BA 01	125FRUN	GW	76-07-24	1300	606	--	--	1210
445622105471901	57N 074W 08BA 01	125FRUN	GW	76-07-09	1000	212	212	--	1920
442700105342001	57N 074W 25DD 01	124WSTC	GW	76-07-10	1100	210	210	--	432

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	DATE OF SAMPLE	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO
BIGHORN COUNTY--Continued											
441114107280700	75-10-07	--	--	--	--	150	11	32	17	3.5	.1
441452107362800	76-05-14	--	--	--	--	530	220	150	38	21	.4
441430107370901	76-09-13	--	--	--	--	470	130	120	45	25	.5
441439107362800	76-05-14	--	--	--	--	230	41	60	21	7.0	.2
441302107443701	76-05-14	--	--	--	--	890	690	220	85	110	1.6
441309107411700	76-05-14	--	--	--	--	760	440	200	65	100	1.6
441044107411501	76-09-15	--	--	--	--	83	0	25	5.0	1400	67
441503107472601	76-09-13	--	--	--	--	32	0	11	1.1	640	49
441513107493501	76-09-13	--	--	--	--	1000	520	180	140	1600	22
441750107322700	76-05-12	--	--	--	--	170	0	45	15	3.5	.1
441616107154700	76-05-12	--	--	--	--	180	0	44	18	2.9	.1
441609107315600	76-05-12	--	--	--	--	180	0	53	11	2.3	.1
441614107331700	76-05-12	--	--	--	--	290	19	71	26	4.7	.1
441538107341301	76-09-10	--	--	--	--	270	57	78	18	4.1	.1
441606107550701	76-09-13	--	--	--	--	150	0	40	12	320	11
441606107531401	76-09-13	--	--	--	--	1000	570	230	100	150	2.1
442513108105401	76-09-15	--	--	--	--	760	340	200	62	340	5.4
442431108113901	76-09-15	--	--	--	--	430	0	96	45	550	12
442502108201301	76-09-15	--	--	--	--	700	300	180	59	550	9.1
442415108125401	76-09-15	--	--	--	--	120	0	33	8.6	200	8.0
442318108161101	76-05-19	--	--	--	--	480	150	130	35	210	4.2
442318108161100	76-05-19	--	--	--	--	72	0	21	5.0	630	32
442312108151200	76-05-19	--	--	--	--	30	0	8.7	2.0	250	20
442252108163901	76-09-15	--	--	--	--	380	93	100	29	300	6.8
442503108245100	76-05-19	--	--	--	--	290	0	86	19	88	2.2
442410108260000	76-05-19	--	--	--	--	360	24	100	26	52	1.2
442422108254600	76-05-19	--	--	--	--	250	12	73	17	41	1.1
442303108204201	76-09-15	--	--	--	--	360	0	93	32	530	12
442303108204202	76-09-15	--	--	--	--	350	0	90	30	520	12
442522108285901	76-09-15	--	--	--	--	230	17	63	17	40	1.2
442448108273701	76-09-15	--	--	--	--	320	0	91	22	48	1.2
442801108045001	76-09-15	--	--	--	--	630	150	150	61	360	6.3
442745108050601	76-09-15	--	--	--	--	630	110	170	47	320	5.6
442703108060000	76-05-19	--	--	--	--	750	0	190	68	1000	16
442700108060400	76-05-19	--	--	--	--	220	0	62	15	180	5.3
442650108244000	76-05-19	--	--	--	--	430	94	120	35	130	2.7
442726108254300	76-05-19	--	--	--	--	86	0	24	6.1	640	30
442548108255300	76-05-19	--	--	--	--	320	57	89	24	77	1.9
CAMPBELL COUNTY--Continued											
440900105062501	76-07-20	8.4	13.8	2	--	32	0	7.9	2.9	400	31
440750105073501	76-07-20	8.4	11.4	2	--	30	0	8.0	2.5	410	32
440820105180001	76-07-27	7.0	14.0	80	--	1300	700	340	110	220	2.7
440815105503501	76-07-27	8.8	13.0	--	--	17	0	5.0	1.1	110	12
441040105520001	76-07-21	8.8	14.2	1	--	30	0	9.1	1.7	190	15
441040105520002	76-07-21	8.7	12.6	--	--	--	--	--	--	--	--
441749105221901	75-11-18	7.4	10.0	34	--	2000	1300	420	230	520	5.1
441716105224901	75-11-18	7.6	11.0	380	--	2400	1800	390	350	650	5.8
441717105232701	76-05-24	8.0	14.0	8	11.8	730	--	160	81	290	4.7
441628105240803	75-11-17	7.5	13.2	70	--	2200	1400	390	290	410	3.8
442400105260001	76-05-20	7.4	19.0	--	--	--	--	--	--	--	--
	76-05-26	7.4	19.0	--	--	--	--	--	--	--	--
441808105305001	76-05-05	--	--	--	--	--	--	--	--	--	--
441808105305002	76-05-26	6.8	12.0	--	--	--	--	--	--	--	--
441912105304203	76-05-25	7.9	38.0	--	--	6	0	1.9	.4	350	60
442515105253001	76-05-26	6.9	12.5	--	--	--	--	--	--	--	--
441700105293201	76-07-06	7.3	14.9	0	--	140	0	30	15	240	8.9
442530105253001	76-05-26	6.8	12.0	10	--	2000	--	500	180	88	.9
441700105310001	76-08-13	6.5	13.0	9	--	1900	1700	530	150	46	.5
441615105300001	76-07-06	7.5	21.2	0	--	45	0	11	4.2	120	7.8
441800105320001	76-08-13	7.0	12.5	95	--	1900	1800	530	150	45	.4
441836105371201	76-05-25	6.9	10.0	4	--	1500	1200	430	110	86	1.0
443115105422901	76-07-22	7.5	12.5	15	--	1800	1600	460	150	570	5.9
443412105134501	76-07-05	8.3	15.0	0	--	12	0	2.8	1.1	290	37
443345105403001	76-07-23	7.6	13.8	8	--	140	0	35	13	330	12
443200105431001	76-07-22	7.4	12.5	0	--	1300	1100	300	130	480	5.8
443345105591201	76-07-12	8.0	25.3	1	--	29	0	6.5	3.2	350	28
443745106000001	76-07-26	7.6	14.9	2	--	71	0	16	7.6	390	20
445151105460012	76-08-11	8.4	41.5	1	--	4	0	1.3	.3	440	90
445150105450001	76-08-11	8.4	41.5	1	--	4	0	1.3	.1	450	102
444748105565401	76-07-08	7.5	16.0	0	--	140	0	26	18	800	30
445515105194501	76-07-24	8.9	15.0	1	--	6	0	1.8	.4	220	39
445622105471901	76-07-09	7.2	12.5	1	--	77	0	16	8.9	470	23
442700105342001	76-07-10	6.5	12.0	25	--	180	68	54	10	10	.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

BIGHORN COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)
441114107280700	75-10-07	1.9	170	0	139	8.2	.0	.3	--	--	10
441452107362800	76-05-14	2.6	380	0	312	270	1.8	.7	--	--	20
441430107370901	76-09-13	2.3	420	0	344	180	1.8	.8	--	--	21
441439107362800	76-05-14	1.9	230	0	189	67	1.8	.3	--	--	11
441302107443701	76-05-14	2.3	240	0	197	910	16	.6	--	--	9.0
441309107411700	76-05-14	4.4	390	0	320	680	.0	.6	--	--	14
441044107411501	76-09-15	3.0	450	0	369	2700	24	1.8	--	--	6.5
441503107472601	76-09-13	1.4	450	0	369	880	66	1.0	--	--	8.0
441513107493501	76-09-13	4.9	580	0	476	3700	160	1.5	--	--	15
441750107322700	76-05-12	.7	210	0	172	6.6	1.8	1.6	--	--	8.3
441616107154700	76-05-12	1.6	230	0	189	5.8	.7	.3	--	--	10
441609107315600	76-05-12	2.3	220	0	180	8.2	1.8	.2	--	--	7.0
441614107331700	76-05-12	2.1	330	0	271	23	1.8	.3	--	--	13
441538107341301	76-09-10	2.1	260	0	213	64	.0	.5	--	--	15
441606107550701	76-09-13	3.5	370	0	303	520	7.5	1.4	--	--	8.2
441606107531401	76-09-13	2.8	520	0	427	850	23	.6	--	--	12
442513108105401	76-09-15	5.3	510	0	418	1000	18	.9	--	--	16
442431108113901	76-09-15	3.5	610	0	500	1100	30	1.1	--	--	28
442502108201301	76-09-15	4.2	490	0	402	1400	59	1.4	--	--	17
442415108125401	76-09-15	2.6	240	0	197	290	20	1.1	--	--	6.9
442318108161101	76-05-19	2.6	400	0	328	520	20	.7	--	--	22
442318108161100	76-05-19	3.5	270	0	221	1000	130	2.5	--	--	6.4
442312108151200	76-05-19	1.9	270	3	226	260	60	1.6	--	--	6.5
442252108163901	76-09-15	3.5	350	0	287	700	27	1.0	--	--	3.5
442503108245100	75-05-19	3.0	370	0	303	180	5.4	.4	--	--	28
442410108260000	76-05-19	3.0	410	0	336	130	4.3	.4	--	--	21
442422108254600	76-05-19	1.6	290	0	238	99	1.8	.3	--	--	25
442303108204201	76-09-15	3.5	710	0	582	850	17	.9	--	--	29
442303108204202	76-09-15	3.7	690	0	566	810	16	.8	--	--	23
442522108285901	76-09-15	3.5	260	0	213	110	3.4	.4	--	--	23
442448108273701	76-09-15	1.9	410	0	336	90	1.7	.5	--	--	25
442801108045001	76-09-15	2.8	590	0	484	860	24	.9	--	--	28
442745108050601	76-09-15	4.9	630	0	517	790	26	.8	--	--	22
442703108060000	76-05-19	6.3	960	0	787	1600	410	1.3	--	--	12
442700108060400	76-05-19	3.7	400	0	328	210	58	.9	--	--	11
442650108244000	76-05-19	3.0	410	0	336	360	3.6	1.4	--	--	25
442726108254300	76-05-19	2.8	230	0	189	1200	69	.2	--	--	4.7
442548108255300	76-05-19	3.0	320	0	262	210	5.4	.6	--	--	24

CAMPBELL COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)
440900105062501	76-07-20	2.6	520	11	445	510	7.8	.7	--	--	5.8
440750105073501	76-07-20	2.6	408	0	335	610	13	1.3	--	--	7.3
440820105180001	76-07-27	12	735	0	603	1500	6.1	.4	--	--	17
440815105503501	76-07-27	1.1	223	0	183	61	16	.6	--	--	7.4
441040105520001	76-07-21	2.1	180	0	148	330	16	.3	--	--	7.9
441040105520002	76-07-21	--	194	--	159	--	--	--	--	--	--
441749105221901	75-11-18	24	884	0	725	2100	250	.7	.6	.02	9.9
441716105224901	75-11-18	19	790	0	648	2700	170	.7	.4	.01	12
441717105232701	76-05-24	21	--	--	--	1100	39	.6	--	--	4.6
441628105240803	75-11-17	19	889	0	729	2000	270	.8	.7	.02	14
442400105260001	76-05-20	--	--	--	--	--	--	--	--	--	--
	76-05-26	--	1160	--	951	--	--	--	--	--	--
441808105305001	76-05-05	--	--	--	--	--	--	--	--	--	--
441808105305002	76-05-26	--	324	0	266	--	--	--	--	--	--
441912105304203	76-05-25	3.3	849	--	696	7.2	28	5.4	--	--	16
442515105253001	'76-05-26	--	311	0	255	--	--	--	--	--	--
441700105293201	76-07-06	7.2	800	0	656	5.5	10	.8	--	--	8.8
442530105253001	76-05-26	16	--	--	--	1900	7.7	.0	--	--	18
441700105310001	76-08-13	6.2	274	0	225	1900	8.1	.5	--	--	23
441615105300001	76-07-06	5.1	363	0	298	2.4	8.4	1.0	--	--	10
441800105320001	76-08-13	6.1	210	0	170	1800	8.3	.4	--	--	22
441836105371201	76-05-25	7.2	363	0	298	1300	24	.4	--	--	13
443115105422901	76-07-22	14	268	0	220	2700	5.9	.1	--	--	9.1
443412105134501	76-07-05	1.6	550	13	473	160	4.3	1.9	--	--	8.5
443345105403001	76-07-23	6.2	1030	0	845	58	8.7	.8	--	--	7.9
443200105431001	76-07-22	9.8	259	0	212	2100	6.2	.4	--	--	9.8
443345105591201	76-07-12	7.2	970	0	796	15	18	1.1	--	--	11
443745106000001	76-07-26	4.9	1160	0	951	14	8.5	1.0	--	--	8.2
445151105460012	76-08-11	2.1	980	71	920	20	40	6.6	--	--	17
445150105450001	76-08-11	2.1	1120	240	1320	24	41	6.5	--	--	17
444748105565401	76-07-08	12	2330	0	1910	24	21	.9	--	--	9.0
445515105194501	76-07-24	1.1	352	14	312	230	6.8	.5	--	--	8.9
445622105471901	76-07-09	5.7	1370	0	1120	11	8.9	1.0	--	--	7.4
442700105342001	76-07-10	1.6	132	0	108	87	1.5	.8	--	--	19

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)
BIGHORN COUNTY--Continued											
441114107280700	75-10-07	--	--	159	--	--	--	.25	--	--	--
441452107362800	76-05-14	--	--	692	--	--	--	.36	--	--	--
441430107370901	76-09-13	--	--	605	--	--	--	.00	--	--	--
441439107362800	76-05-14	--	--	283	--	--	--	.14	--	--	--
441302107443701	76-05-14	--	--	1470	--	--	--	.02	--	--	--
441309107411700	76-05-14	--	--	1260	--	--	--	.05	--	--	--
441044107411501	76-09-15	--	--	4400	--	--	--	2.5	--	--	--
441503107472601	76-09-13	--	--	1830	--	--	--	.14	--	--	--
441513107493501	76-09-13	--	--	6120	--	--	--	6.1	--	--	--
441750107322700	76-05-12	--	--	189	--	--	--	.18	--	--	--
441616107154700	76-05-12	--	--	197	--	--	--	.25	--	--	--
441609107315600	76-05-12	--	--	195	--	--	--	.14	--	--	--
441614107331700	76-05-12	--	--	306	--	--	--	.18	--	--	--
441538107341301	76-09-10	--	--	312	--	--	--	.27	--	--	--
441606107550701	76-09-13	--	--	1100	--	--	--	.07	--	--	--
441606107531401	76-09-13	--	--	1630	--	--	--	.02	--	--	--
442513108105401	76-09-15	--	--	1950	--	--	--	8.6	--	--	--
442431108113901	76-09-15	--	--	2160	--	--	--	6.8	--	--	--
442502108201301	76-09-15	--	--	2460	--	--	--	.09	--	--	--
442415108125401	76-09-15	--	--	683	--	--	--	.00	--	--	--
442318108161101	76-05-19	--	--	1140	--	--	--	.29	--	--	--
442318108161100	76-05-19	--	--	1940	--	--	--	.05	--	--	--
442312108151200	76-05-19	--	--	726	--	--	--	.38	--	--	--
442252108163901	76-09-15	--	--	1340	--	--	--	.32	--	--	--
442503108245100	76-05-19	--	--	600	--	--	--	.79	--	--	--
442410108260000	76-05-19	--	--	546	--	--	--	.32	--	--	--
442422108254600	76-05-19	--	--	404	--	--	--	.36	--	--	--
442303108204201	76-09-15	--	--	1930	--	--	--	3.8	--	--	--
442303108204202	76-09-15	--	--	1840	--	--	--	1.6	--	--	--
442522108285901	76-09-15	--	--	385	--	--	--	.95	--	--	--
442448108273701	76-09-15	--	--	485	--	--	--	.27	--	--	--
442801108045001	76-09-15	--	--	1800	--	--	--	4.7	--	--	--
442745108050601	76-09-15	--	--	1690	--	--	--	.02	--	--	--
442703108060000	76-05-19	--	--	3760	--	--	--	1.7	--	--	--
442700108060400	76-05-19	--	--	733	--	--	--	.00	--	--	--
442650108244000	76-05-19	--	--	887	--	--	--	2.5	--	--	--
442726108254300	76-05-19	--	--	2060	--	--	--	.27	--	--	--
442548108255300	76-05-19	--	--	615	--	--	--	4.7	--	--	--
CAMPBELL COUNTY--Continued											
440900105062501	76-07-20	--	--	1210	1.65	--	--	--	.94	--	.01
440750105073501	76-07-20	--	--	1260	1.71	--	--	--	1.4	--	.01
440820105180001	76-07-27	--	--	2600	3.54	--	--	--	.06	--	1.3
440815105503501	76-07-27	--	300	312	.42	--	--	--	.00	.00	.21
441040105520001	76-07-21	--	590	646	.88	--	--	--	.00	.03	.36
441040105520002	76-07-21	--	--	--	--	--	--	--	.02	--	.21
441749105221901	75-11-18	--	--	4000	5.44	--	--	--	.00	--	1.3
441716105224901	75-11-18	--	--	4680	6.36	--	--	--	.00	--	.20
441717105232701	76-05-24	--	2200	--	--	--	2	--	--	--	--
441628105240803	75-11-17	--	--	3830	5.21	--	--	--	.02	--	.18
442400105260001	76-05-20	--	--	--	--	--	--	--	--	--	--
	76-05-26	--	870	--	--	--	6	--	--	--	--
441808105305001	76-05-05	--	2200	--	--	--	<1	--	--	--	--
441808105305002	76-05-26	--	--	--	--	--	--	--	.01	.01	.38
441912105304203	76-05-25	--	1300	831	--	--	<1	--	.01	.01	1.3
442515105253001	76-05-26	--	4600	--	--	--	2	--	.19	.02	.69
441700105293201	76-07-06	--	--	712	.97	--	--	--	.02	.06	.99
442530105253001	76-05-26	--	4200	--	--	--	1	--	--	--	--
441700105310001	76-08-13	--	3100	2830	3.85	--	--	--	.06	.01	.23
441615105300001	76-07-06	--	--	347	.47	--	--	--	.00	1.3	.62
441800105320001	76-08-13	--	3100	2690	3.66	--	--	--	.06	--	.19
441836105371201	76-05-25	--	--	2150	--	--	--	--	--	--	--
443115105422901	76-07-22	--	2100	4050	5.51	--	--	--	.04	.04	1.2
443412105134501	76-07-05	--	--	755	1.03	.41	--	--	.08	.02	.71
443345105403001	76-07-23	--	830	967	1.32	--	--	--	.01	.00	.64
443200105431001	76-07-22	--	3300	3220	4.38	--	--	--	13	13	.20
443345105591201	76-07-12	--	790	891	1.21	--	--	--	.03	.01	.82
443745106000001	76-07-26	--	930	1020	1.39	--	--	--	.00	.00	.54
445151105460012	76-08-11	--	--	1080	1.47	--	--	--	.21	--	1.1
445150105450001	76-08-11	--	--	1330	1.81	--	--	--	.15	--	1.1
444748105565401	76-07-08	--	--	2060	2.80	5.56	--	--	.00	.02	1.6
445515105194501	76-07-24	--	610	657	.89	--	--	--	.52	.03	.01
445622105471901	76-07-09	--	--	1210	1.65	--	--	--	.00	.00	.93
442700105342001	76-07-10	--	--	249	.34	--	--	--	.30	.27	.02

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	DATE OF SAMPLE	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL HYDRO-LYZABLE PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC PHOS-PHORUS (P) (MG/L)
					BIGHORN COUNTY--Continued						
441114107280700	75-10-07	--	--	--	--	.00	--	--	--	--	--
441452107362800	76-05-14	--	--	--	--	.00	--	--	--	--	--
441430107370901	76-09-13	--	--	--	--	.03	--	--	--	--	--
441439107362800	76-05-14	--	--	--	--	.00	--	--	--	--	--
441302107443701	76-05-14	--	--	--	--	.01	--	--	--	--	--
441309107411700	76-05-14	--	--	--	--	.01	--	--	--	--	--
441044107411501	76-09-15	--	--	--	--	.05	--	--	--	--	--
441503107472601	76-09-13	--	--	--	--	.06	--	--	--	--	--
441513107493501	76-09-13	--	--	--	--	.02	--	--	--	--	--
441750107322700	76-05-12	--	--	--	--	.00	--	--	--	--	--
441616107154700	76-05-12	--	--	--	--	.01	--	--	--	--	--
441609107315600	76-05-12	--	--	--	--	.02	--	--	--	--	--
441614107331700	76-05-12	--	--	--	--	.00	--	--	--	--	--
441538107341301	76-09-10	--	--	--	--	.03	--	--	--	--	--
441606107550701	76-09-13	--	--	--	--	.13	--	--	--	--	--
441606107531401	76-09-13	--	--	--	--	.02	--	--	--	--	--
442513108105401	76-09-15	--	--	--	--	.00	--	--	--	--	--
442431108113901	76-09-15	--	--	--	--	.02	--	--	--	--	--
442502108201301	76-09-15	--	--	--	--	.00	--	--	--	--	--
442415108125401	76-09-15	--	--	--	--	.01	--	--	--	--	--
442318108161101	76-05-19	--	--	--	--	.02	--	--	--	--	--
442318108161100	76-05-19	--	--	--	--	.00	--	--	--	--	--
442312108151200	76-05-19	--	--	--	--	.00	--	--	--	--	--
442252108163901	76-09-15	--	--	--	--	.01	--	--	--	--	--
442503108245100	76-05-19	--	--	--	--	.03	--	--	--	--	--
442410108260000	76-05-19	--	--	--	--	.01	--	--	--	--	--
442422108254600	76-05-19	--	--	--	--	.01	--	--	--	--	--
442303108204201	76-09-15	--	--	--	--	.01	--	--	--	--	--
442303108204202	76-09-15	--	--	--	--	.00	--	--	--	--	--
442522108285901	76-09-15	--	--	--	--	.56	--	--	--	--	--
442448108273701	76-09-15	--	--	--	--	.08	--	--	--	--	--
442801108045001	76-09-15	--	--	--	--	.02	--	--	--	--	--
442745108050601	76-09-15	--	--	--	--	.02	--	--	--	--	--
442703108060000	76-05-19	--	--	--	--	.01	--	--	--	--	--
442700108060400	76-05-19	--	--	--	--	.01	--	--	--	--	--
442650108244000	76-05-19	--	--	--	--	.02	--	--	--	--	--
442726108254300	76-05-19	--	--	--	--	.00	--	--	--	--	--
442548108255300	76-05-19	--	--	--	--	.05	--	--	--	--	--
					CAMPBELL COUNTY--Continued						
440900105062501	76-07-20	.04	.05	--	.99	.04	--	--	--	--	--
440750105073501	76-07-20	.08	.09	--	1.5	.04	--	--	--	--	--
440820105180001	76-07-27	.00	.99	--	1.1	.00	--	--	--	--	--
440815105503501	76-07-27	.02	.23	--	.23	.02	--	--	--	--	--
441040105520001	76-07-21	--	.27	--	.27	.01	--	--	--	--	--
441040105520002	76-07-21	.04	.25	--	.27	.01	--	--	--	--	--
441749105221901	75-11-18	1.7	3.0	--	3.0	.09	--	--	--	--	--
441716105224901	75-11-18	2.1	2.3	--	2.3	1.3	--	--	--	--	--
441717105232701	76-05-24	--	--	--	--	--	--	--	--	--	--
441628105240803	75-11-17	1.2	1.4	--	1.4	.15	--	--	--	--	--
442400105260001	76-05-20	--	--	--	--	--	--	--	--	--	--
	76-05-26	--	--	--	--	--	--	--	--	--	--
441808105305001	76-05-05	--	--	--	--	--	--	--	--	--	--
441808105305002	76-05-26	--	--	--	--	.02	--	--	--	--	--
441912105304203	76-05-25	--	--	--	--	.02	--	--	--	--	--
442515105253001	76-05-26	--	--	--	--	.05	--	--	--	--	--
441700105293201	76-07-06	.11	1.1	1.7	1.1	.00	--	--	--	.00	--
442530105253001	76-05-26	--	--	--	--	--	--	--	--	--	--
441700105310001	76-08-13	.34	.57	--	.63	.51	--	--	--	--	--
441615105300001	76-07-06	.20	.82	1.4	.82	.00	--	--	--	.01	.00
441800105320001	76-08-13	.37	.56	--	.62	.54	--	--	--	--	--
441836105371201	76-05-25	--	--	--	--	--	--	--	--	--	--
443115105422901	76-07-22	--	1.1	--	1.1	.01	--	--	--	--	--
443412105134501	76-07-05	.15	.86	.97	.94	.08	--	--	--	.08	.00
443345105403001	76-07-23	.02	.66	--	.67	.01	--	--	--	--	--
443200105431001	76-07-22	.28	.48	--	13	.01	--	--	--	--	--
443345105591201	76-07-12	--	.36	--	.39	.02	--	--	--	--	--
443745106000001	76-07-26	.04	.58	--	.58	.01	--	--	--	--	--
445151105460012	76-08-11	.00	1.0	--	1.2	.02	--	--	--	--	--
445150105450001	76-08-11	.00	.70	--	.85	.02	--	--	--	--	--
444748105565401	76-07-08	1.5	3.1	2.6	3.1	.09	--	--	--	.03	.03
445515105194501	76-07-24	.14	.15	--	.67	.06	--	--	--	--	--
445622105471901	76-07-09	--	.30	1.5	.30	.03	--	--	--	.01	.00
442700105342001	76-07-10	1.1	1.1	.11	1.4	1.8	--	--	--	.00	1.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT)	SAMP- LING DEPTH (FT)	INSTAN- TANEOUS DIS- CHARGE (CFS)	FLOW RATE (GPM)
		CARBON COUNTY							
413802107333101	19N 090W 08CDB01	125FRUN	GW	76-05-06	1030	110	110	--	4.5
413741107335801	19N 090W 18AAA01	--	GW	76-02-10	1030	--	--	--	--
413518107295701	19N 090W 26CAD01	211MVRD	SP	76-04-20	1600	.00	--	E.10	--
414025107294101	20N 090W 26AAB01	125FRUN	GW	76-04-14	0915	--	--	--	--
414658107254801	21N 089W 22AAA01	125FRUN	GW	76-05-11	1630	340	340	--	--
415408106463001	22N 083W 05DDR01	125FRRS	GW	76-06-04	1300	--	--	--	--
415940106445001	23N 083W 03BDB01	125FRRS	GW	76-06-03	1600	--	126	--	--
415838106480701	23N 083W 07CAA01	125FRRS	GW	76-06-03	1400	--	124	--	--
420052106472801	24N 083W 30DDD01	125FRRS	GW	76-05-27	1800	--	156	--	--
420001106461501	24N 083W 32DDD01	125FRRS	GW	76-05-28	1200	--	97	--	--

STATION NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT)	SAMP- LING DEPTH (FT)	INSTAN- TANEOUS DIS- CHARGE (CFS)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)
		CONVERSE COUNTY							
424845105523001	33N 075W 20AA 01	--	GW	76-07-22	0745	--	--	--	--
430242105421001	35N 074W 35CAA01	--	GW	75-10-30	1500	--	--	2.0	675
		CROOK COUNTY							
443433104214001	51N 063W 12ADB01	--	GW	75-11-05	1500	--	--	--	390
443435104210201	53N 062W 19DBB01	317MNLS	GW	75-11-05	1600	--	--	--	358
		FREMONT COUNTY							
424303107371001	32N 090W 28BCC01	--	SP	76-06-16	--	--	--	--	--

STATION NUMBER	LOCAL IDENT- I- FIER	GEO- LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT)	SAMP- LING DEPTH (FT)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS)	PH (UNITS)
		HOT SPRINGS COUNTY							
434203108402801	08N 002E 05BCC01	--	GW	76-09-14	--	--	--	--	--
434140108280301	08N 003E 01CDA01	--	GW	76-09-17	--	--	--	--	--
434140108280302	08N 003E 01CDA02	--	GW	76-09-17	--	--	--	--	--
434252108402101	09N 002E 32CBB01	--	GW	76-09-14	--	--	--	--	--
434227108385401	09N 002E 33CDC01	--	GW	76-09-14	--	--	--	--	--
434258108313301	09N 003E 33ADB01	--	GW	76-09-14	--	--	--	--	--
434242108114101	43N 094W 07BCB01	--	GW	76-09-14	--	--	--	--	--
434109108181201	43N 095W 19ABC01	--	GW	76-09-14	--	--	--	--	--
434305108392201	43N 097W 05BCB01	--	GW	76-09-14	--	--	--	--	--
434211108281801	43N 097W 11CCC01	--	GW	76-09-14	--	--	--	--	--
434210108275001	43N 097W 14BAC01	--	GW	76-09-14	--	--	--	--	--
434251108405101	43N 098W 07BCD01	--	GW	76-09-14	--	--	--	--	--
434133108485601	43N 100W 14DAB01	--	GW	76-09-14	--	--	--	--	--
		JOHNSON COUNTY							
433153106352000	41N 081W 09C 01	331MDSN	GW	76-09-16	1130	--	--	--	--
430432106575701	41N 084W 20BAC01	--	GW	76-09-15	1440	--	--	--	--
441112106493500	49N 083W 27DBA01	--	GW	76-09-14	1220	--	--	--	7.3
		NATRONA COUNTY							
431854106110801	39N 078W 26CDC01	331MDSN	GW	76-07-21	1200	--	--	--	--
432427106180101	40N 079W 26AAC01	--	GW	76-07-22	1200	--	--	--	--
432340106230001	40N 079W 31BCA01	331MDSN	GW	76-07-21	1400	--	--	--	--
		PARK COUNTY							
443432110214001	WELL FB 1 YNP	111LCTN	GW	76-07-19	1000	--	48	--	--
443437110214601	WELL FB 2 YNP	111LCTN	GW	76-06-24	1100	--	51	--	--
		111LCTN	GW	76-09-21	1045	--	51	85	6.6
443440110215201	WELL FB 3 YNP	111LCTN	GW	76-06-24	1500	--	50	--	--
		111LCTN	GW	76-09-21	1530	--	51	270	6.4
443443110215001	WELL FB 4 YNP	111LCTN	GW	76-08-03	1100	--	49	--	--
443441110213801	WELL FB 8 YNP	111LCTN	GW	76-07-22	1430	--	48	--	--
443452110220401	WELL FB10 YNP	111LCTN	GW	76-08-03	1500	--	40	--	--
443446110214801	WELL FR5 YNP	--	GW	76-07-19	1445	--	--	--	--
443431110215001	WELL FB9 YNP	111LCTN	GW	76-07-22	1015	--	51	--	--
441329108493501	49N 099W 13BAA01	--	GW	76-09-16	--	--	--	--	--
441329108493502	49N 099W 13BAA02	--	GW	76-09-16	--	--	--	--	--
441539108471801	49N 099W 32CAB01	--	GW	76-09-16	--	--	--	--	--
441313108494101	49N 100W 13BDC01	--	GW	76-09-16	--	--	--	--	--
441254108501801	49N 100W 14DDB01	--	GW	76-09-16	--	--	--	--	--
441040108510601	49N 100W 34DBD01	--	GW	76-09-16	--	--	--	--	--
442024108383201	51N 098W 21DCD01	--	GW	76-09-15	--	--	--	--	--
442150108390601	51N 098W 28CBB01	--	GW	76-09-15	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO
CARBON COUNTY--Continued											
413802107333101	76-05-06	1120	7.0	9.5	--	540	130	130	53	46	.9
413741107335801	76-02-10	1200	7.4	7.5	330	620	100	120	78	8.3	.1
413518107295701	76-04-20	1100	6.8	8.0	2	600	150	130	68	23	.4
414025107294101	76-04-14	810	7.2	8.0	10	390	30	96	37	35	.8
414658107254801	76-05-11	3100	7.3	9.5	37	1400	1100	330	140	280	3.3
415408106463001	76-06-04	--	7.8	10.0	120	810	160	78	150	360	5.5
415940106445001	76-06-03	--	7.3	9.0	15	690	230	93	110	46	.8
415838106480701	76-06-03	--	--	--	60	950	300	150	140	1200	17
420052106472801	76-05-27	--	--	--	900	890	850	110	150	28	.4
420001106461501	76-05-28	--	--	12.0	400	220	0	45	27	840	24

STATION NUMBER	DATE OF SAMPLE	PH (UNITS)	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	DIS-SOLVED OXYGEN (MG/L)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO
CONVERSE COUNTY--Continued											
424845105523001	76-07-22	--	--	--	--	380	280	110	25	77	1.7
430242105421001	75-10-30	8.6	11.5	--	--	--	--	--	--	--	--
CROOK COUNTY--Continued											
443433104214001	75-11-05	7.6	14.0	0	--	200	77	56	14	2.2	.1
443435104210201	75-11-05	7.6	10.0	0	--	230	10	69	15	2.8	.1
FREMONT COUNTY--Continued											
424303107371001	76-06-16	--	9.0	--	--	140	0	46	5.8	32	1.2

STATION NUMBER	DATE OF SAMPLE	TEMPER-ATURE (DEG C)	TUR-BID-ITY (JTU)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)	DIS-SOLVED MAG-NE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM (NA) (MG/L)	SODIUM AD-SORP-TION RATIO	DIS-SOLVED PO-TAS-SIUM (K) (MG/L)	BICAR-BONATE (HCO3) (MG/L)
HOT SPRINGS COUNTY--Continued											
434203108402801	76-09-14	--	--	380	170	93	36	20	.4	1.9	260
434140108280301	76-09-17	--	--	490	340	100	58	230	4.5	3.7	180
434140108280302	76-09-17	--	--	240	60	59	23	240	6.7	3.0	220
434252108402101	76-09-14	--	--	490	190	150	29	60	1.2	2.8	370
434227108385401	76-09-14	--	--	1200	870	270	120	180	2.3	3.9	400
434258108313301	76-09-14	--	--	610	220	150	55	120	2.1	1.4	470
434242108114101	76-09-14	--	--	740	400	140	92	560	9.0	4.0	410
434109108181201	76-09-14	--	--	1700	1400	320	210	440	4.7	4.9	380
434305108392201	76-09-14	--	--	640	41	130	78	480	8.2	5.3	730
434211108281801	76-09-14	--	--	20	0	4.7	2.0	540	53	1.9	930
4342101082[illegible]001	76-09-14	--	--	480	37	110	50	310	6.2	5.1	540
4342511084[illegible]3101	76-09-14	--	--	490	210	140	34	110	2.2	2.6	340
434133108485601	76-09-14	--	--	310	64	89	22	73	1.8	2.1	300
JOHNSON COUNTY--Continued											
433153106352000	76-09-16	--	--	850	680	240	61	380	5.7	25	215
430432106575701	76-09-15	--	--	220	11	35	32	1.6	.0	.6	255
441112106493500	76-09-14	7.1	--	160	8	32	19	2.2	.1	1.1	185
NATRONA COUNTY--Continued											
431854106110801	76-07-21	--	--	900	790	290	41	760	11	69	130
432427106180101	76-07-22	--	--	220	28	56	19	8.3	.2	2.6	232
432340106230001	76-07-21	--	--	960	860	300	49	490	6.9	35	122
PARK COUNTY--Continued											
443432110214001	76-07-19	4.5	--	24	0	6.3	2.0	2.0	.2	2.3	32
443437110214601	76-06-24	5.0	--	28	0	5.7	3.4	3.2	.3	2.7	45
	76-09-21	5.5	--	32	0	6.4	3.8	3.5	.3	2.9	46
443440110215201	76-06-24	6.0	--	68	7	15	7.4	5.6	.3	4.4	74
	76-09-21	13.0	--	94	12	21	10	9.7	.4	7.1	99
443443110215001	76-08-03	5.0	--	58	0	14	5.5	4.4	.3	4.4	71
443441110213801	76-07-22	6.5	--	38	0	8.9	3.9	3.6	.3	3.3	55
443452110220401	76-08-03	6.0	--	25	0	6.4	2.1	2.4	.2	2.5	37
443446110214801	76-07-19	7.0	--	33	0	7.6	3.3	2.8	.2	3.5	40
443431110215001	76-07-22	5.0	--	30	0	6.4	3.5	3.0	.2	2.8	43
441329108493501	76-09-16	--	--	290	0	61	34	140	3.6	6.5	380
441329108493502	76-09-16	--	--	390	70	86	43	130	2.9	6.5	390
441539108471801	76-09-16	--	--	36	0	9.0	3.3	340	25	1.9	470
441313108494101	76-09-16	--	--	420	18	100	39	38	.8	4.2	490
441254108501801	76-09-16	--	--	180	0	39	19	200	6.6	4.9	500
441040108510601	76-09-16	--	--	390	13	90	40	130	2.9	4.6	460
442024108383201	76-09-15	--	--	100	0	25	9.9	390	17	3.7	530
442150108390601	76-09-15	--	--	28	0	6.7	2.7	450	37	2.1	570

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	DATE OF SAMPLE	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
CARBON COUNTY--Continued											
413802107333101	76-05-06	2.8	439	--	360	280	8.2	.3	12	--	751
413741107335801	76-02-10	4.0	629	0	516	140	4.7	.2	10	--	689
413518107295701	76-04-20	6.8	559	0	459	200	6.3	.3	7.4	850	718
414025107294101	76-04-14	6.7	441	0	362	110	4.5	.1	13	570	522
414658107254801	76-05-11	8.2	386	0	317	1600	31	.3	6.9	3700	2590
415408106463001	76-06-04	13	794	0	651	900	19	.3	7.0	--	1930
415940106445001	76-06-03	3.8	558	0	458	330	7.4	.2	9.3	--	880
415838106480701	76-06-03	13	795	--	652	2400	100	.4	5.9	--	4410
420052106472801	76-05-27	28	52	--	43	890	7.8	.2	19	--	1290
420001106461501	76-05-28	11	1410	--	1160	740	33	.4	5.9	--	2400

STATION NUMBER	DATE OF SAMPLE	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)
CONVERSE COUNTY--Continued											
424845105523001	76-07-22	9.8	123	--	101	340	78	1.4	.4	.01	19
430242105421001	75-10-30	--	--	--	--	--	--	--	--	--	--
CROOK COUNTY--Continued											
443433104214001	75-11-05	1.8	150	0	123	48	15	.4	.0	.00	11
443435104210201	75-11-05	1.1	273	0	224	7.5	1.1	.3	.0	.00	9.3
FREMONT COUNTY--Continued											
424303107371001	76-06-16	4.4	240	0	197	14	3.0	.3	--	--	47

STATION NUMBER	DATE OF SAMPLE	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	DISSOLVED SILICA (SIO2) (MG/L)	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)
HOT SPRINGS COUNTY--Continued											
434203108402801	76-09-14	0	213	200	2.7	.4	--	--	11	--	--
434140108280301	76-09-17	0	148	810	15	.6	--	--	4.0	--	--
434140108280302	76-09-17	0	180	550	15	.6	--	--	5.7	--	--
434252108402101	76-09-14	0	303	300	5.3	.5	--	--	24	--	--
434227108385401	76-09-14	0	328	1200	6.6	.8	--	--	25	--	--
434258108313301	76-09-14	0	385	470	12	1.0	--	--	32	--	--
434242108114101	76-09-14	0	336	1500	110	1.2	--	--	9.8	--	--
434109108181201	76-09-14	0	312	2200	35	1.1	--	--	15	--	--
434305108392201	76-09-14	0	599	920	91	1.2	--	--	49	--	--
434211108281801	76-09-14	6	773	310	53	1.4	--	--	6.2	--	--
434210108275001	76-09-14	0	443	680	12	.8	--	--	23	--	--
434251108405101	76-09-14	0	279	440	6.2	.5	--	--	17	--	--
434133108485601	76-09-14	0	246	210	12	.5	--	--	29	--	--
JOHNSON COUNTY--Continued											
433153106352000	76-09-16	--	176	840	490	3.0	4.3	.03	24	2220	1800
430432106575701	76-09-15	--	209	6.2	1.3	.2	.0	.00	6.7	231	230
441112106493500	76-09-14	0	152	7.7	.9	.2	.0	.00	9.3	161	180
NATRONA COUNTY--Continued											
431854106110801	76-07-21	--	107	920	1200	4.4	3.5	.02	59	3490	3000
432427106180101	76-07-22	--	190	34	4.4	.3	.1	.01	19	248	240
432340106230001	76-07-21	--	100	970	620	3.5	1.9	.03	32	2600	2600
PARK COUNTY--Continued											
443432110214001	76-07-19	--	26	6.9	1.8	.1	--	--	29	--	--
443437110214601	76-06-24	--	37	3.5	1.2	.1	--	--	46	--	--
	76-09-21	0	38	6.3	.8	.1	--	--	44	--	--
443440110215201	76-06-24	--	61	5.3	4.3	.1	--	--	44	--	--
	76-09-21	0	81	18	22	.1	--	--	48	--	--
443443110215001	76-08-03	--	58	6.8	3.2	.1	--	--	40	--	--
443441110213801	76-07-22	--	45	7.5	1.4	.1	--	--	41	--	--
443452110220401	76-08-03	--	30	5.0	.6	.1	--	--	31	--	--
443446110214801	76-07-19	--	33	6.3	1.8	.1	--	--	33	--	--
443431110215001	76-07-22	--	35	4.6	.8	.1	--	--	41	--	--
441329108493501	76-09-16	0	312	300	5.0	.4	--	--	6.3	--	--
441329108493502	76-09-16	0	320	350	6.0	.6	--	--	6.5	--	--
441539108471801	76-09-16	0	385	370	8.0	3.0	--	--	8.2	--	--
441313108494101	76-09-16	0	402	95	2.1	.5	--	--	26	--	--
441254108501801	76-09-16	0	410	180	6.6	.4	--	--	6.6	--	--
441040108510601	76-09-16	0	377	280	8.1	.5	--	--	15	--	--
442024108383201	76-09-15	0	435	450	10	.8	--	--	7.9	--	--
442150108390601	76-09-15	0	468	510	9.3	1.3	--	--	7.0	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	DATE OF SAMPLE	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILTRABLE RESIDUE (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	DISSOLVED AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)
				CARBON COUNTY--Continued							
413802107333101	76-05-06	1.02	--	--	--	--	.01	--	--	--	--
413741107335801	76-02-10	--	--	--	2.2	2.5	--	.11	--	.99	1.1
413518107295701	76-04-20	.98	.19	3	--	.01	.01	.47	.47	.27	.74
414025107294101	76-04-14	.71	--	1	--	.12	.12	.43	--	.33	.76
414658107254801	76-05-11	3.52	--	13	--	--	.04	--	--	--	--
415408106463001	76-06-04	2.62	--	--	--	.01	--	.04	--	.00	1.7
415940106445001	76-06-03	1.20	--	--	--	.01	--	.14	--	.04	.18
415838106480701	76-06-03	6.00	--	--	--	.01	--	.03	--	1.9	6.3
420052106472801	76-05-27	1.75	--	--	--	--	--	--	--	--	--
420001106461501	76-05-28	3.26	--	--	--	--	--	--	--	--	--

STATION NUMBER	DATE OF SAMPLE	DISSOLVED SOLIDS (RESIDUE AT 180 C) (MG/L)	TOTAL FILTRABLE RESIDUE (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	DISSOLVED SOLIDS (TONS PER DAY)	TOTAL NON-FILTRABLE RESIDUE (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)
				CONVERSE COUNTY--Continued							
424845105523001	76-07-22	732	780	718	.98	--	14	--	--	--	--
430242105421001	75-10-30	--	520	--	--	--	36	--	--	--	--
				CROOK COUNTY--Continued							
443433104214001	75-11-05	--	--	222	--	--	--	--	.16	--	.00
443435104210201	75-11-05	--	--	241	.33	--	--	--	.20	--	.00
				FREMONT COUNTY--Continued							
424303107371001	76-06-16	--	--	270	--	--	--	.05	--	--	--

STATION NUMBER	DATE OF SAMPLE	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)	DISSOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILTRABLE RESIDUE (MG/L)	DISSOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DISSOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITROGEN (N) (MG/L)	TOTAL ORGANIC NITROGEN (N) (MG/L)	TOTAL KJELDAHL NITROGEN (N) (MG/L)	TOTAL NITROGEN (N) (MG/L)
				HOT SPRINGS COUNTY--Continued							
434203108402801	76-09-14	503	--	--	.95	--	--	--	--	--	--
434140108280301	76-09-17	1310	--	--	.00	--	--	--	--	--	--
434140108280302	76-09-17	1010	--	--	.84	--	--	--	--	--	--
434252108402101	76-09-14	750	--	--	.09	--	--	--	--	--	--
434227108385401	76-09-14	2030	--	--	.16	--	--	--	--	--	--
434258108313301	76-09-14	1070	--	--	.27	--	--	--	--	--	--
434242108114101	76-09-14	2590	--	--	1.7	--	--	--	--	--	--
434109108181201	76-09-14	3410	--	--	.00	--	--	--	--	--	--
434305108392201	76-09-14	2110	--	--	.34	--	--	--	--	--	--
434211108281801	76-09-14	1380	--	--	.77	--	--	--	--	--	--
434210108275001	76-09-14	1460	--	--	.00	--	--	--	--	--	--
434251108405101	76-09-14	914	--	--	.16	--	--	--	--	--	--
434133108485601	76-09-14	587	--	--	.63	--	--	--	--	--	--
				JOHNSON COUNTY--Continued							
433153106352000	76-09-16	2180	2.96	1	--	--	--	--	--	.75	--
430432106575701	76-09-15	209	--	<1	--	--	--	--	--	.54	--
441112106493500	76-09-14	164	.22	--	--	--	--	--	--	--	--
				NATRONA COUNTY--Continued							
431854106110801	76-07-21	3430	4.66	26	--	--	--	--	--	.11	--
432427106180101	76-07-22	259	.35	0	--	--	--	--	--	.16	--
432340106230001	76-07-21	2570	3.50	13	--	--	--	--	--	.32	--
				PARK COUNTY--Continued							
443432110214001	76-07-19	67	.09	--	--	--	.08	--	--	.34	--
443437110214601	76-06-24	88	.12	--	--	--	--	--	--	.60	--
	76-09-21	92	.13	--	--	--	.31	--	--	.56	--
443440110215201	76-06-24	123	.17	--	--	--	--	--	--	1.2	--
	76-09-21	185	.25	--	--	--	.17	--	--	1.5	--
443443110215001	76-08-03	117	.16	--	--	--	.90	--	--	1.3	--
443441110213801	76-07-22	97	.13	--	--	--	.10	--	--	.78	--
443452110220401	76-08-03	69	.09	--	--	--	.18	--	--	.40	--
443446110214801	76-07-19	85	.12	--	--	--	1.5	--	--	.80	--
443431110215001	76-07-22	84	.11	--	--	--	.24	--	--	.11	--
441329108493501	76-09-16	748	--	--	3.2	--	--	--	--	--	--
441329108493502	76-09-16	834	--	--	3.2	--	--	--	--	--	--
441539108471801	76-09-16	979	--	--	.52	--	--	--	--	--	--
441313108494101	76-09-16	552	--	--	1.5	--	--	--	--	--	--
441254108501801	76-09-16	708	--	--	1.4	--	--	--	--	--	--
441040108510601	76-09-16	798	--	--	.23	--	--	--	--	--	--
442024108383201	76-09-15	1160	--	--	.70	--	--	--	--	--	--
442150108390601	76-09-15	1270	--	--	.81	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

CARBON COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)
413802107333101	76-05-06	--	--	--	--	--
413741107335801	76-02-10	3.6	.18	--	--	--
413518107295701	76-04-20	.75	.01	.00	.00	.00
414025107294101	76-04-14	.88	.01	.00	.00	.00
414658107254801	76-05-11	--	--	.01	--	--
415408106463001	76-06-04	1.7	.02	--	--	--
415940106445001	76-06-03	.26	.01	--	--	--
415838106480701	76-06-03	6.4	.02	--	--	--
420052106472801	76-05-27	--	--	--	--	--
420001106461501	76-05-28	--	--	--	--	--

STATION NUMBER	DATE OF SAMPLE	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	DIS-SOLVED KJEL. NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)	TOTAL HYDRO-LYZABLE PHOS-PHORUS (P) (MG/L)	TOTAL ORGANIC PHOS-PHORUS (P) (MG/L)
CONVERSE COUNTY--Continued											
424845105523001	76-07-22	--	.00	--	--	--	.00	--	--	--	--
430242105421001	75-10-30	--	--	--	--	--	--	--	--	--	--
CROOK COUNTY--Continued											
443433104214001	75-11-05	.00	.00	--	.16	.00	--	--	--	--	--
443435104210201	75-11-05	.03	.03	--	.23	.00	--	--	--	--	--
FREMONT COUNTY--Continued											
424303107371001	76-06-16	--	--	--	--	.07	--	--	--	--	--

STATION NUMBER	DATE OF SAMPLE	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)
HOT SPRINGS COUNTY--Continued					
434203108402801	76-09-14	.00	--	--	--
434140108280301	76-09-17	.00	--	--	--
434140108280302	76-09-17	.01	--	--	--
434252108402101	76-09-14	.10	--	--	--
434227108385401	76-09-14	.00	--	--	--
434258108313301	76-09-14	.03	--	--	--
434242108114101	76-09-14	.06	--	--	--
434109108181201	76-09-14	.00	--	--	--
434305108392201	76-09-14	.00	--	--	--
434211108281801	76-09-14	.04	--	--	--
434210108275001	76-09-14	.03	--	--	--
434251108405101	76-09-14	.00	--	--	--
434133108485601	76-09-14	.00	--	--	--
JOHNSON COUNTY--Continued					
433153106352000	76-09-16	--	.01	--	--
430432106575701	76-09-15	--	.01	--	--
441112106493500	76-09-14	--	.00	--	--
NATRONA COUNTY--Continued					
431854106110801	76-07-21	--	.00	--	--
432427106180101	76-07-22	--	.02	--	--
432340106230001	76-07-21	--	.00	--	--
PARK COUNTY--Continued					
443432110214001	76-07-19	.12	--	--	--
443437110214601	76-06-24	.33	--	--	--
	76-09-21	.26	--	--	--
443440110215201	76-06-24	1.3	--	--	--
	76-09-21	.91	--	--	--
443443110215001	76-08-03	.53	--	--	--
443441110213801	76-07-22	1.7	--	--	--
443452110220401	76-08-03	.45	--	--	--
443446110214801	76-07-19	.12	--	--	--
443431110215001	76-07-22	.13	--	--	--
441329108493501	76-09-16	.00	--	--	--
441329108493502	76-09-16	.00	--	--	--
441539108471801	76-09-16	.03	--	--	--
441313108494101	76-09-16	.05	--	--	--
441254108501801	76-09-16	.00	--	--	--
441040108510601	76-09-16	.00	--	--	--
442024108383201	76-09-15	.01	--	--	--
442150108390601	76-09-15	.01	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT)	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
				SHERIDAN COUNTY					
444657107090001	56N 085W 31BD 01	125FRUN	GW	76-08-16	1200	116	--	775	7.7
444700107100001	56N 086W 05AA 01	--	GW	76-08-16	1600	--	--	800	8.6
445355107315001	57N 087W 21DBC01	331MDSN	GW	76-07-19	1350	--	--	--	--

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)
				TETON COUNTY					
442324110315701	WELL GV 1 YNP	111LCTN	GW	76-07-22	1500	16	--	--	11.5
442318110320302	WELL GV 10A YNP	111LCTN	GW	76-07-22	1045	20	--	--	5.5
442323110321101	WELL GV 2 YNP	111LCTN	GW	76-09-22	1545	50	170	7.5	4.5
442322110321002	WELL GV 3AYNP	111LCTN	GW	76-07-16	1030	38	--	--	6.5
442321110321901	WELL GV 4 YNP	111LCTN	GW	76-08-30	1045	58	--	--	5.0
442319110320401	WELL GV 5 YNP	111LCTN	GW	76-07-20	1015	56	--	--	5.0
442320110320801	WELL GV 6 YNP	111LCTN	GW	76-07-16	1300	43	--	--	7.0
442317110321601	WELL GV 7 YNP	111LCTN	GW	76-09-20	1030	105	70	6.3	5.0
442315110321201	WELL GV 8 YNP	111LCTN	GW	76-09-20	1520	97	90	6.6	7.0
442316110320901	WELL GV 9 YNP	111LCTN	GW	76-09-22	1030	58	120	7.7	5.0
442318110320301	WELL GV10 YNP	111LCTN	GW	76-07-20	1530	53	--	--	7.5
443844110521901	WELL MJ 3 YNP	--	GW	75-10-20	1515	60	255	5.4	11.0
		111ALVM	GW	76-08-26	1030	60	--	--	11.5
443842110522201	WELL MJ 5 YNP	--	GW	75-10-20	1130	40	185	6.0	11.0
443842110522101	WELL MJ 6 YNP	111ALVM	GW	76-08-26	1515	35	--	--	14.5
442720110504101	WELL OF 2 YNP	112OLCL	GW	76-08-24	1000	48	--	--	18.5
442722110504401	WELL OF 3 YNP	112OLCL	GW	76-08-25	1045	65	--	--	16.0
442724110504801	WELL OF 5 YNP	112OLCL	GW	76-08-24	1310	49	--	--	17.0
442723110505201	WELL OF 7 YNP	112OLCL	GW	76-08-25	1500	35	--	--	15.0

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TEMPER-ATURE (DEG C)	HARD-NESS (CA,MG) (MG/L)	NON-CAR-BONATE HARD-NESS (MG/L)	DIS-SOLVED CAL-CIUM (CA) (MG/L)
				WASHAKIE COUNTY					
434850107220001	44N 087W 01BDA01	--	GW	76-09-10	--	--	250	0	45
434800107174100	44N 087W 09ABD01	--	SP	76-05-09	--	12.0	280	75	60
434724107183500	44N 087W 09CBD01	--	GW	76-05-09	--	13.0	150	19	37
434852107220300	44N 088W 01DBD01	--	GW	76-05-13	--	--	830	510	200
435253107205301	45N 087W 07ADD01	--	GW	76-09-10	--	--	450	150	120
435024107210601	45N 087W 30ABC01	--	GW	76-09-10	--	--	1000	970	270
435024107210602	45N 087W 30ACB02	--	GW	76-09-10	--	--	610	330	150
435621107172801	46N 087W 22ADD01	--	SP	76-09-12	--	12.0	1300	1100	420
435613107562401	46N 087W 22DAA01	--	SP	76-09-12	--	--	1200	1000	350
435622107163201	46N 087W 23ACD01	--	SP	76-09-13	--	--	270	57	59
435402107551801	46N 087W 26DBD01	--	SP	76-09-15	--	--	240	19	53
435727107233001	46N 088W 14AAC01	--	GW	76-09-10	--	--	100	0	26
435644107231201	46N 088W 24BBC01	--	GW	76-09-10	--	--	28	0	8.8
440405107210300	47N 087W 06DAA01	--	GW	76-07-17	--	--	110	0	25
440102107193901	47N 087W 28BBC01	--	GW	76-09-09	--	--	340	28	68
440359107225201	47N 088W 01CAD01	--	SP	76-09-15	--	--	160	4	33
440300107241101	47N 088W 11CDB01	--	GW	76-09-15	--	--	210	21	47
440157107251301	47N 088W 15CAA01	--	GW	75-11-05	--	--	170	6	36
440225107260701	47N 088W 21ABA01	--	GW	75-11-06	--	--	260	80	61
440020107250300	47N 088W 27DBD01	--	GW	76-05-17	--	--	1500	1100	440
440430107280301	47N 089W 01ACD01	--	SP	76-09-10	--	--	1500	1500	410
440438107301201	47N 089W 03AAD01	--	GW	76-09-15	--	--	780	500	200
440340107283501	47N 089W 12BDC01	--	GW	76-09-15	--	--	1100	800	300
440257107280800	47N 089W 13ABD01	--	GW	76-05-17	--	--	1100	760	300
440723107330500	48N 089W 20ABB01	--	GW	76-05-17	--	--	120	0	27
		--	GW	76-09-15	--	--	1300	930	290
440517107084700	48N 089W 34CBC01	--	GW	76-05-17	--	--	760	420	190
440909107361301	48N 090W 11DBA01	--	GW	76-09-15	--	--	840	410	200

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT)	SAMP-LING DEPTH (FT)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)
				WESTON COUNTY					
435219104055402	45N 060W 20BB 01	--	GW	75-11-11	1500	--	--	1800	7.6
435440104091001	45N 061W 02BC 01	317MNLS	GW	75-11-07	0930	720	--	540	7.5
435030104110001	45N 061W 33AB 01	337PHSP	GW	76-07-13	1040	3596	--	--	--
435800104210001	46N 062W 18BDC01	337PHSP	GW	76-07-13	1500	2677	2677	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SHERIDAN COUNTY--Continued'

STATION NUMBER	DATE OF SAMPLE	TEMPERATURE (DEG C)	TURBIDITY (JTU)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
444657107090001	76-08-16	10.0	3	140	0	31	14	140	5.2	3.9	390
444700107100001	76-08-16	10.0	--	140	0	32	15	150	5.5	3.9	390
445355107315001	76-07-19	--	--	220	21	56	20	.4	.0	.6	246

TETON COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)
442324110315701	76-07-22	140	6	36	13	4.2	.2	1.9	167	--	137
442318110320302	76-07-22	47	0	12	4.2	2.1	.1	2.9	61	--	50
442323110321101	76-09-22	61	17	18	3.8	4.5	.3	3.9	53	0	43
442322110321002	76-07-16	28	0	8.4	1.7	2.4	.2	2.3	35	--	29
442321110321901	76-08-30	24	1	6.0	2.1	3.1	.3	3.2	27	--	22
442319110320401	76-07-20	64	0	19	4.1	5.5	.3	2.7	92	--	75
442320110320801	76-07-16	31	0	7.7	2.9	2.7	.2	2.7	46	--	38
442317110321601	76-09-20	20	0	5.0	1.8	2.8	.3	3.3	34	0	28
442315110321201	76-09-20	29	0	7.2	2.6	2.9	.2	2.9	41	0	34
442316110320901	76-09-22	45	0	11	4.2	3.5	.2	3.4	65	0	53
442318110320301	76-07-20	57	0	15	4.7	3.6	.2	1.7	80	--	66
443844110521901	75-10-20	61	14	20	2.6	24	1.3	8.8	57	0	47
	76-08-26	27	10	8.1	1.6	18	1.5	5.6	21	--	17
443842110522201	75-10-20	24	0	7.6	1.3	31	2.7	5.5	91	0	75
443842110522101	76-08-26	14	0	4.2	.8	41	4.8	5.8	102	--	84
442720110504101	76-08-24	5	--	1.8	.2	35	6.6	8.3	--	--	--
442722110504401	76-08-25	10	0	2.8	.7	40	5.5	9.1	42	--	34
442724110504801	76-08-24	71	0	21	4.4	48	2.5	10	144	--	118
442723110505201	76-08-25	24	0	7.5	1.2	41	3.7	9.9	37	--	30

WASHAKIE COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)	CARBONATE (CO3) (MG/L)	ALKALINITY AS CACO3 (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED FLUORIDE (F) (MG/L)
434850107220001	76-09-10	32	250	7.0	2.6	370	0	303	460	6.5	.7
434800107174100	76-05-09	31	7.0	.2	1.2	250	0	205	86	2.5	.5
434724107183500	76-05-09	14	2.3	.1	.9	160	0	131	20	.0	.1
434852107220300	76-05-13	80	220	3.3	3.7	390	0	320	960	14	1.0
435253107205301	76-09-10	34	16	.3	1.9	370	0	303	180	1.0	.4
435024107210601	76-09-10	85	450	6.1	6.1	43	0	35	1800	17	1.0
435024107210602	76-09-10	57	670	12	4.4	340	0	279	1800	17	1.2
435621107172801	76-09-12	67	11	.1	2.3	230	0	189	1100	2.2	.8
435613107562401	76-09-12	75	11	.1	2.1	240	0	197	970	2.2	.9
435622107163201	76-09-13	30	1.2	.0	.9	260	0	213	61	.5	.3
435402107551801	76-09-15	27	2.9	.1	1.2	270	0	221	20	1.8	.3
435727107233001	76-09-10	8.8	350	15	1.4	440	0	361	490	1.8	.8
435644107231201	76-09-10	1.4	1000	83	2.1	640	0	525	1500	71	4.1
440405107210300	76-07-17	12	3.5	.1	.7	140	0	115	5.8	.0	.1
440102107193901	76-09-09	42	2.9	.1	1.4	380	0	312	16	.8	.2
440359107225201	76-09-15	19	2.3	.1	.7	190	0	156	4.9	3.6	.2
440300107241101	76-09-15	23	4.1	.1	.5	230	0	189	25	.6	.1
440157107251301	75-11-05	20	2.9	.1	.7	200	0	164	13	2.1	.3
440225107260701	75-11-06	27	3.5	--	1.2	220	0	180	97	1.8	.4
440020107250300	76-05-17	100	220	2.5	21	480	0	394	1500	15	1.0
440430107280301	76-09-10	120	85	.9	3.7	45	3	42	1500	38	1.4
440438107301201	76-09-15	68	31	.5	3.0	340	0	279	540	2.2	.7
440340107283501	76-09-15	76	46	.6	2.6	370	0	303	820	1.8	.8
440257107280800	76-05-17	82	130	1.7	3.7	410	0	336	960	11	.9
440723107330500	76-05-17	12	14	.6	7.0	160	0	131	22	2.5	.5
	76-09-15	130	110	1.3	3.7	450	0	369	1100	5.5	.8
440517107084700	76-05-17	73	21	.3	3.7	420	0	344	450	4.3	.8
440909107361301	76-09-15	82	120	1.8	2.3	520	0	427	670	9.1	.6

WESTON COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	TEMPERATURE (DEG C)	TURBIDITY (JTU)	HARDNESS (CA,MG) (MG/L)	NONCARBONATE HARDNESS (MG/L)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM (NA) (MG/L)	SODIUM ADSORPTION RATIO	DISSOLVED POTASSIUM (K) (MG/L)	BICARBONATE (HCO3) (MG/L)
435219104055402	75-11-11	9.0	--	1300	1100	420	51	3.4	.0	1.9	256
435440104091001	75-11-07	15.0	0	260	7	61	26	2.7	.1	1.8	309
435030104110001	76-07-13	--	--	310	78	73	31	2.5	.1	2.1	284
435800104210001	76-07-13	--	--	280	31	66	27	1.3	.0	1.2	299

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	DATE OF SAMPLE	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)
					SHERIDAN COUNTY--Continued						
444657107090001	76-08-16	0	320	150	7.3	.5	--	--	7.5	--	460
444700107100001	76-08-16	0	320	170	7.2	.4	--	--	7.7	--	4400
445355107315001	76-07-19	--	202	8.1	.5	.2	.0	.00	6.3	211	210

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)
			TETON COUNTY--Continued						
442324110315701	76-07-22	6.5	1.1	.4	33	179	.24	.11	.07
442318110320302	76-07-22	3.5	1.5	.1	30	87	.12	.08	.70
442323110321101	76-09-22	5.7	9.0	.1	25	111	.15	3.4	.94
442322110321002	76-07-16	5.3	2.3	.1	18	63	.09	1.1	1.3
442321110321901	76-08-30	3.7	1.8	.1	38	77	.10	1.2	--
442319110320401	76-07-20	7.1	1.3	.5	38	124	.17	.03	1.0
442320110320801	76-07-16	5.2	.7	.2	33	78	.11	.03	.87
442317110321601	76-09-20	4.7	.5	.1	38	73	.10	.04	.90
442315110321201	76-09-20	5.9	.6	.1	37	80	.11	.04	.37
442316110320901	76-09-22	5.5	.7	.1	38	99	.13	.12	1.5
442318110320301	76-07-20	5.3	.8	.3	37	108	.15	.04	.84
443844110521901	75-10-20	6.3	12	3.5	60	209	.28	9.9	1.2
	76-08-26	6.4	5.9	4.8	64	160	.22	8.0	1.9
443842110522201	75-10-20	3.5	2.0	7.2	53	157	.21	.19	.49
443842110522101	76-08-26	3.3	2.3	9.5	83	202	.27	.28	.72
442720110504101	76-08-24	10	36	2.8	42	--	.23	.28	6.8
442722110504401	76-08-25	9.4	37	3.7	43	197	.27	6.6	6.5
442724110504801	76-08-24	23	34	3.0	57	272	.37	.11	5.6
442723110505201	76-08-25	6.0	30	2.7	58	223	.30	11	4.4

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
	WASHAKIE COUNTY--Continued				
434850107220001	76-09-10	9.0	994	.27	.01
434800107174100	76-05-09	10	322	.02	.00
434724107183500	76-05-09	9.3	164	.02	.00
434852107220300	76-05-13	11	1700	4.3	.00
435253107205301	76-09-10	19	561	1.3	.01
435024107210601	76-09-10	7.9	2680	.00	.02
435024107210602	76-09-10	11	2880	.00	.00
435621107172801	76-09-12	20	1770	1.2	.01
435613107562401	76-09-12	24	1560	1.4	.01
435622107163201	76-09-13	11	295	.66	.00
435402107551801	76-09-15	11	254	.72	.02
435727107233001	76-09-10	9.2	1110	.88	.01
435644107231201	76-09-10	7.6	2930	1.6	.07
440405107210300	76-07-17	9.3	126	.16	.01
440102107193901	76-09-09	18	353	2.7	2.2
440359107225201	76-09-15	9.4	169	.52	.01
440300107241101	76-09-15	10	224	.00	.10
440157107251301	75-11-05	9.7	184	.25	.01
440225107260701	75-11-06	9.7	309	.00	.00
440020107250300	76-05-17	13	2570	.02	.01
440430107280301	76-09-10	21	2240	.11	.01
440438107301201	76-09-15	13	1020	.00	.02
440340107283501	76-09-15	27	1460	.99	.02
440257107280800	76-05-17	26	1730	2.5	.01
440723107330500	76-05-17	11	174	.02	.00
	76-09-15	15	1890	.20	.02
440517107084700	76-05-17	15	957	.09	.00
440909107361301	76-09-15	13	1350	1.4	.01

STATION NUMBER	DATE OF SAMPLE	CAR-BONATE (CO3) (MG/L)	ALKA-LINITY AS CACO3 (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLO-RIDE (CL) (MG/L)	DIS-SOLVED FLUO-RIDE (F) (MG/L)	BROMIDE (BR) (MG/L)	IODIDE (I) (MG/L)	DIS-SOLVED SILICA (SIO2) (MG/L)	DIS-SOLVED SOLIDS (RESI-DUE AT 180 C) (MG/L)	TOTAL FILT-RABLE RESIDUE (MG/L)
					WESTON COUNTY--Continued						
435219104055402	75-11-11	0	210	980	1.4	.3	.0	.00	11	1730	--
435440104091001	75-11-07	0	253	11	1.4	.3	.0	.00	11	--	--
435030104110001	76-07-13	--	233	86	2.1	.6	.0	.01	13	308	340
435800104210001	76-07-13	--	245	17	.8	.3	.0	.01	12	259	250

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

SHERIDAN COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	DIS-SOLVED NITRATE (N) (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)
444657107090001	76-08-16	547	--	--	--	3.0	.22	.83	1.8	2.6	5.6
444700107100001	76-08-16	579	.79	--	--	1.7	--	1.5	.40	1.9	3.6
445355107315001	76-07-19	214	.29	4	--	--	--	--	--	.09	--

TETON COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOLVED IRON (FE) (UG/L)	DIS-SOL-VED ORGANIC CARBON (C) (MG/L)
442324110315701	76-07-22	.22	60	44
442318110320302	76-07-22	.21	20	6.8
442323110321101	76-09-22	.09	20	11
442322110321002	76-07-16	.40	20	4.3
442321110321901	76-08-30	.64	30	3.3
442319110320401	76-07-20	.38	30	2.9
442320110320801	76-07-16	1.9	20	6.5
442317110321601	76-09-20	.25	20	1.1
442315110321201	76-09-20	.09	20	1.8
442316110320901	76-09-22	.21	20	2.2
442318110320301	76-07-20	.14	10	2.1
443844110521901	75-10-20	.21	20	3.2
	76-08-26	.31	60	5.4
443842110522201	75-10-20	.15	10	2.7
443842110522101	76-08-26	.15	70	6.2
442720110504101	76-08-24	3.6	200	9.6
442722110504401	76-08-25	1.0	1700	6.9
442724110504801	76-08-24	7.7	10	21
442723110505201	76-08-25	2.7	170	9.7

WESTON COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED SOLIDS (SUM OF CONSTI-TUENTS) (MG/L)	DIS-SOLVED SOLIDS (TONS PER AC-FT)	TOTAL NON-FILT-RABLE RESIDUE (MG/L)	TOTAL NITRITE PLUS NITRATE (N) (MG/L)	DIS-SOLVED NITRITE PLUS NITRATE (N) (MG/L)	TOTAL AMMONIA NITRO-GEN (N) (MG/L)	TOTAL ORGANIC NITRO-GEN (N) (MG/L)	TOTAL KJEL-DAHL NITRO-GEN (N) (MG/L)	TOTAL NITRO-GEN (N) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)
435219104055402	75-11-11	1600	2.18	--	--	.34	--	--	--	--	--
435440104091001	75-11-07	267	--	--	.20	--	.00	.03	.03	.23	.00
435030104110001	76-07-13	351	.48	1	--	--	--	--	.05	--	--
435800104210001	76-07-13	273	.37	4	--	--	--	--	.17	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

STATION NUMBER	DATE OF SAMPLE	TOTAL PHOS-PHORUS (P) (MG/L)	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)
SHERIDAN COUNTY--Continued					
444657107090001	76-08-16	.03	--	--	--
444700107100001	76-08-16	.01	--	--	--
445355107315001	76-07-19	--	.00	--	--

STATION NUMBER	DATE OF SAMPLE	DIS-SOL-VED-PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO. PHOS-PHORUS (P) (MG/L)	DIS-SOLVED ORTHO PHOS-PHATE (PO4) (MG/L)
WESTON COUNTY--Continued				
435219104055402	75-11-11	--	.01	.03
435440104091001	75-11-07	--	--	--
435030104110001	76-07-13	.00	--	--
435800104210001	76-07-13	.01	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRACE METALS ANALYSES

CAMPBELL COUNTY

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT)	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ANTI-MONY (SB) (UG/L)
440900105062501	48N 069W 11DC 01	125FRUN	GW	76-07-20	1500	420	--	30	0
		125FRUN	GW	76-07-20	A1505	420	--	<20	--
440750105073501	48N 069W 22AC 01	125FRUN	GW	76-07-20	1000	400	--	30	0
		125FRUN	GW	76-07-20	A1005	400	--	30	--
440820105180001	48N 070W 17BC 01	125FRUN	GW	76-07-27	1000	300	--	10	0
		125FRUN	GW	76-07-27	A1005	300	--	60	--
440815105503501	48N 075W 14BD 01	124WSTC	GW	76-07-27	1700	195	50	50	0
		124WSTC	GW	76-07-27	A1705	195	--	20	--
441040105520001	49N 075W 34CA 01	124WSTC	GW	76-07-21	0900	515	40	40	0
		124WSTC	GW	76-07-21	A0905	515	--	9	--
441749105221901	50N 071W 27AAC01	--	GW	75-11-18	1330	--	2300	20	0
441716105224901	50N 071W 27BAD01	--	GW	75-11-18	1600	--	20000	10	1
441717105232701	50N 071W 28AAC01	--	GW	76-05-24	1500	--	620	270	2
441628105240803	50N 071W 33BAC03	--	GW	75-11-17	1410	--	6700	20	0
442400105260001	50N 072W 14AAA01	--	GW	76-05-20	A1400	--	--	20	--
441808105305001	50N 072W 21AAC01	--	GW	76-05-05	A1500	--	--	<20	--
441912105304203	50N 072W 21AAC03	--	GW	76-05-25	1330	--	70	20	0
442515105253001	50N 072W 26AAC01	--	GW	76-05-26	A0945	--	--	70	--
441700105293201	50N 072W 26AC 01	124WSTC	GW	76-07-06	1600	280	40	20	0
442530105253001	50N 072W 26BBB01	--	GW	76-05-26	0830	--	50	20	0
441700105310001	50N 072W 28AB 01	124WSTC	GW	76-08-13	1100	232	40	10	0
		124WSTC	GW	76-08-13	A1105	232	--	40	--
441615105300001	50N 072W 34AA 01	124WSTC	GW	76-07-06	1200	1106	30	20	0
441800105320001	50N 073W 01AA 01	--	GW	76-08-13	1300	--	30	10	0
		--	GW	76-08-13	A1305	--	--	<50	--
441836105371201	50N 073W 27BCB01	--	GW	76-05-25	1030	--	--	--	--
443115105422901	52N 074W 01BA 01	125FRUN	GW	76-07-22	1400	--	30	30	0
		125FRUN	GW	76-07-22	A1405	--	--	90	--
443412105134501	53N 070W 13AA 01	125FRUN	GW	76-07-05	1700	810	--	40	--
443345105403001	53N 073W 20BD 01	125FRUN	GW	76-07-23	1100	--	80	30	0
		125FRUN	GW	76-07-23	A1105	--	--	70	--
443200105431001	53N 074W 35AB 01	125FRUN	GW	76-07-22	1100	210	40	40	0
		125FRUN	GW	76-07-22	A1105	210	--	50	--
443345105591201	53N 076W 22AB 01	124WSTC	GW	76-07-12	1400	1050	40	50	0
		124WSTC	GW	76-07-12	A1405	1050	--	10	--
443745106000001	54N 076W 27BC 01	124WSTC	GW	76-07-26	1400	695	50	60	0
		124WSTC	GW	76-07-26	A1405	695	--	90	--
445151105460012	56N 074W 04AA 12	--	GW	76-08-11	1400	--	--	20	0
		--	GW	76-08-11	A1405	--	--	30	--
445150105450001	56N 074W 04CB 01	125FRUN	GW	76-08-11	1200	3850	--	20	0
		125FRUN	GW	76-08-11	A1205	3850	--	30	--
444748105565401	56N 076W 25CB 01	125FRUN	GW	76-07-08	1200	850	30	0	0
445515105194501	57N 070W 19BA 01	125FRUN	GW	76-07-24	1300	606	20	60	0
		125FRUN	GW	76-07-24	A1305	606	--	20	--
445622105471901	57N 074W 08BA 01	125FRUN	GW	76-07-09	1000	212	40	10	0
442700105342001	57N 074W 25DD 01	124WSTC	GW	76-07-10	1100	210	30	20	0

CARBON COUNTY

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT)	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ANTI-MONY (SB) (UG/L)
413802107333101	19N 090W 08CDB01	125FRUN	GW	76-05-06	1030	110	--	--	--
413741107335801	19N 090W 18AAA01	--	GW	76-02-10	1030	--	--	20	--
413518107295701	19N 090W 26CAD01	211MVRD	SP	76-04-20	1600	.00	60	0	--
414025107294101	20N 090W 26AAB01	125FRUN	GW	76-04-14	0915	--	20	0	--
414658107254801	21N 089W 22AAA01	125FRUN	GW	76-05-11	1630	340	--	0	--
415408106463001	22N 083W 05DDB01	125FRRS	GW	76-06-04	1300	--	200	40	--
415940106445001	23N 083W 03BDB01	125FRRS	GW	76-06-03	1600	--	200	10	--
415838106480701	23N 083W 07CAA01	125FRRS	GW	76-06-03	1400	--	200	100	--
420052106472801	24N 083W 30DDD01	125FRRS	GW	76-05-27	1800	--	14000	10	--
420001106461501	24N 083W 32DDD01	125FRRS	GW	76-05-28	1200	--	14000	30	--

A Trace elements determined by spectrographic analysis.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRACE METALS ANALYSES

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED ANTI-MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BISMUTH (BI) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)
					CAMPBELL COUNTY--Continued						
440900105062501	76-07-20	0	0	0	--	--	0	--	120	--	--
	76-07-20	--	--	--	6	--	<9	<9	60	--	--
440750105073501	76-07-20	0	0	0	--	--	0	--	90	--	--
	76-07-20	--	--	--	10	--	<10	<10	30	--	--
440820105180001	76-07-27	0	2	2	--	--	0	--	50	--	--
	76-07-27	--	--	--	20	--	<20	<17	<40	--	--
440815105503501	76-07-27	0	0	0	--	0	0	--	40	<10	--
	76-07-27	--	--	--	40	--	<3	<3	30	--	--
441040105520001	76-07-21	0	1	0	--	0	0	--	40	<10	--
	76-07-21	--	--	--	9	--	<4	<4	90	--	--
441749105221901	75-11-18	0	5	2	--	10	0	--	430	10	--
441716105224901	75-11-18	0	16	2	--	10	10	--	560	10	--
441717105232701	76-05-24	2	4	3	--	0	20	--	--	<10	--
441628105240803	75-11-17	0	8	2	--	20	10	--	300	10	--
442400105260001	76-05-20	--	--	--	400	--	<2	<7	40	--	--
441808105305001	76-05-05	--	--	--	20	--	<20	<50	130	--	--
441912105304203	76-05-25	0	0	0	200	0	10	<20	190	<10	--
442515105253001	76-05-26	--	--	--	20	--	<10	<50	100	--	--
441700105293201	76-07-06	0	0	0	--	0	0	--	80	<10	--
442530105253001	76-05-26	0	0	0	--	0	0	--	160	10	--
441700105310001	76-08-13	0	0	0	--	0	0	--	110	10	--
	76-08-13	--	--	--	10	--	<20	<19	130	--	--
441615105300001	76-07-06	0	0	0	--	0	0	--	60	<10	--
441800105320001	76-08-13	0	1	0	--	10	0	--	120	<10	--
	76-08-13	--	--	--	10	--	<20	<18	80	--	--
441836105371201	76-05-25	--	--	--	--	--	--	--	230	--	--
443115105422901	76-07-22	0	0	0	--	0	0	--	100	<10	--
	76-07-22	--	--	--	20	--	<30	<26	90	--	--
443412105134501	76-07-05	0	--	0	--	--	0	--	180	--	--
443345105403001	76-07-23	0	0	0	--	0	0	--	70	<10	--
	76-07-23	--	--	--	200	--	<5	<9	90	--	--
443200105431001	76-07-22	0	0	0	--	0	0	--	120	<10	--
	76-07-22	--	--	--	30	--	<20	<23	110	--	--
443345105591201	76-07-12	0	0	0	--	0	0	--	110	<10	--
	76-07-12	--	--	--	10	--	<5	<5	50	--	--
443745106000001	76-07-26	0	0	0	--	0	0	--	90	<10	--
	76-07-26	--	--	--	300	--	<5	<10	150	--	--
445151105460012	76-08-11	0	0	0	--	--	0	--	370	--	--
	76-08-11	--	--	--	90	--	<10	<10	210	--	--
445150105450001	76-08-11	0	0	0	--	--	0	--	380	--	--
	76-08-11	--	--	--	70	--	<10	<10	280	--	--
444748105565401	76-07-08	0	0	0	--	0	0	--	160	<10	--
445515105194501	76-07-24	0	0	0	--	0	0	--	110	<10	--
	76-07-24	--	--	--	30	--	<3	<5	70	--	--
445622105471901	76-07-09	0	0	0	--	0	10	--	120	<10	--
442700105342001	76-07-10	0	4	0	--	0	0	--	30	<10	--

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED ANTI-MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BISMUTH (BI) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)
					CARBON COUNTY--Continued						
413802107333101	76-05-06	--	--	--	--	--	--	--	30	--	--
413741107335801	76-02-10	--	--	--	60	--	<4	<15	360	--	2
413518107295701	76-04-20	--	0	0	--	0	0	--	90	<10	0
414025107294101	76-04-14	--	0	0	--	0	0	--	50	<10	0
414658107254801	76-05-11	--	--	0	--	--	10	--	70	--	0
415408106463001	76-06-04	--	0	0	--	10	0	--	130	0	0
415940106445001	76-06-03	--	0	0	--	0	0	--	110	4	3
415838106480701	76-06-03	--	0	0	--	0	0	--	80	0	0
420052106472801	76-05-27	--	16	2	--	0	20	--	540	10	0
420001106461501	76-05-28	--	14	3	--	0	20	--	90	20	0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRACE METALS ANALYSES

CAMPBELL COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED GALLIUM (GA) (UG/L)	DIS-SOLVED GER-MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)
440900105062501	76-07-20	1	--	10	--	--	1	--	--	--	50
	76-07-20	1	--	<9	<9	--	<5	<9	<20	--	120
440750105073501	76-07-20	1	--	10	--	--	1	--	--	--	110
	76-07-20	1	--	<10	<10	--	<5	<10	<20	--	160
440820105180001	76-07-27	0	--	0	--	--	0	--	--	--	28000
	76-07-27	1	--	<17	<17	--	<9	<20	<40	--	32000
440815105503501	76-07-27	0	10	10	--	<10	1	--	--	70	90
	76-07-27	1	--	10	<3	--	<2	<3	<8	--	20
441040105520001	76-07-21	0	0	10	--	<10	1	--	--	20	90
	76-07-21	0	--	4	<4	--	<2	<4	<10	--	10
441749105221901	75-11-18	0	30	20	--	10	2	--	--	4600	1200
441716105224901	75-11-18	1	70	20	--	60	4	--	--	44000	280
441717105232701	76-05-24	1	20	0	--	20	2	--	--	400	30
441628105240803	75-11-17	0	30	20	--	30	2	--	--	12000	290
442400105260001	76-05-20	0	--	<7	<7	--	<2	<3	<10	--	140
441808105305001	76-05-05	--	--	<50	<50	--	<10	<20	<70	--	2500
441912105304203	76-05-25	0	10	0	<20	10	2	<8	<30	130	30
442515105253001	76-05-26	0	--	<50	<50	--	<10	<20	<70	--	3700
441700105293201	76-07-06	1	0	0	--	<10	1	--	--	600	20
442530105253001	76-05-26	0	20	0	--	30	2	--	--	2800	2600
441700105310001	76-08-13	0	10	0	--	20	0	--	--	30000	21000
	76-08-13	2	--	37	<19	--	<9	<20	<50	--	2000
441615105300001	76-07-06	1	0	0	--	10	2	--	--	160	170
441800105320001	76-08-13	1	0	0	--	10	0	--	--	31000	20000
	76-08-13	1	--	<18	55	--	<9	<20	<50	--	25000
441836105371201	76-05-25	--	--	--	--	--	--	--	--	--	10
443115105422901	76-07-22	0	10	10	--	<10	1	--	--	2800	2700
	76-07-22	1	--	26	<26	--	<13	<30	<60	--	2700
443412105134501	76-07-05	1	--	10	--	--	1	--	--	--	220
443345105403001	76-07-23	0	10	0	--	<10	0	--	--	350	340
	76-07-23	0	--	<9	<9	--	9	<9	<20	--	270
443200105431001	76-07-22	1	10	10	--	<10	2	--	--	170	190
	76-07-22	1	--	26	<23	--	<11	<20	<60	--	40
443345105591201	76-07-12	1	0	0	--	<10	3	--	--	90	190
	76-07-12	0	--	<5	<5	--	<3	<5	<10	--	10
443745106000001	76-07-26	0	0	0	--	<10	0	--	--	370	180
	76-07-26	0	--	<10	<10	--	10	<10	<20	--	280
445151105460012	76-08-11	3	--	0	--	--	1	--	--	--	40
	76-08-11	2	--	<10	<10	--	<5	<10	<30	--	40
445150105450001	76-08-11	3	--	0	--	--	1	--	--	--	40
	76-08-11	2	--	<10	<10	--	<5	<10	<30	--	40
444748105565401	76-07-08	0	0	0	--	10	1	--	--	410	160
445515105194501	76-07-24	1	0	0	--	<10	1	--	--	100	110
	76-07-24	0	--	<5	<5	--	3	<5	<10	--	50
445622105471901	76-07-09	0	0	0	--	<10	0	--	--	490	230
442700105342001	76-07-10	0	0	0	--	10	0	--	--	4800	180

CARBON COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DIS-SOLVED COPPER (CU) (UG/L)	DIS-SOLVED GALLIUM (GA) (UG/L)	DIS-SOLVED GER-MANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)
413802107333101	76-05-06	--	--	--	--	--	--	--	--	2300	--
413741107335801	76-02-10	--	<10	<15	--	10	<7	<20	--	30	--
413518107295701	76-04-20	0	10	--	10	0	--	--	420	380	<100
414025107294101	76-04-14	10	10	--	10	2	--	--	1200	1100	<100
414658107254801	76-05-11	--	10	--	--	1	--	--	--	5600	--
415408106463001	76-06-04	10	<10	--	20	0	--	--	19000	6000	12
415940106445001	76-06-03	10	<10	--	50	10	--	--	9300	30	56
415838106480701	76-06-03	20	10	--	20	10	--	--	14000	9400	16
420052106472801	76-05-27	50	0	--	50	1	--	--	47000	26000	<100
420001106461501	76-05-28	80	0	--	80	4	--	--	15000	180	200

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRACE METALS ANALYSES

STATION NUMBER	OF SAMPLE	LEAD (PB) (UG/L)	DIS-LEAD (PB) (UG/L)	LITHIUM (LI) (UG/L)	DIS-LITHIUM (LI) (UG/L)	TOTAL GANESE (MN) (UG/L)	DISSOLVED GANESE (MN) (UG/L)	MERCURY (HG) (UG/L)	DIS-MERCURY (HG) (UG/L)	TOTAL DENUM (MO) (UG/L)	DISSOLVED DENUM (MO) (UG/L)
CAMPBELL COUNTY--Continued											
440900105062501	76-07-20	--	1	--	10	--	20	--	.2	--	0
	76-07-20	--	<14	--	10	--	10	--	--	--	<9
440750105073501	76-07-20	--	1	--	10	--	20	--	.2	--	0
	76-07-20	--	<14	--	--	--	10	--	--	--	<10
440820105180001	76-07-27	--	1	--	60	--	1400	--	.2	--	0
	76-07-27	--	<26	--	60	--	1000	--	--	--	<17
440815105503501	76-07-27	<100	2	10	10	10	10	.1	.1	0	0
	76-07-27	--	<5	--	10	--	6	--	--	--	<3
441040105520001	76-07-21	<100	2	20	20	20	20	.0	.0	0	0
	76-07-21	--	<7	--	20	--	10	--	--	--	<4
441749105221901	75-11-18	200	3	120	110	12000	9100	.0	.0	4	0
441716105224901	75-11-18	200	2	150	120	2600	540	.1	.0	8	0
441717105232701	76-05-24	<100	4	60	50	100	50	.0	.0	7	8
441628105240803	75-11-17	200	2	190	170	3200	1200	.0	.0	3	0
442400105260001	76-05-20	--	<7	--	40	--	<7	--	--	--	<3
441808105305001	76-05-05	--	<50	--	--	--	400	--	--	--	<20
441912105304203	76-05-25	<100	4	30	10	10	0	.0	.0	1	0
442515105253001	76-05-26	--	<50	--	130	--	1100	--	--	--	<25
441700105293201	76-07-06	<100	4	50	50	30	30	.0	.0	0	0
442530105253001	76-05-26	100	7	120	120	280	250	.0	.0	0	0
441700105310001	76-08-13	100	1	170	170	4700	4800	.0	.1	0	0
	76-08-13	--	<28	--	160	--	500	--	--	--	<19
441615105300001	76-07-06	<100	2	20	20	40	50	.0	.0	2	0
441800105320001	76-08-13	100	0	170	160	4700	4800	.1	.2	0	0
	76-08-13	--	<28	--	160	--	4300	--	--	--	<18
441836105371201	76-05-25	--	--	--	--	--	--	--	--	--	--
443115105422901	76-07-22	100	3	150	140	1600	1200	.0	.0	0	0
	76-07-22	--	<38	--	130	--	1400	--	--	--	<26
443412105134501	76-07-05	--	8	--	10	--	10	--	.0	--	0
443345105403001	76-07-23	<100	3	50	40	40	20	.0	.0	0	0
	76-07-23	--	42	--	40	--	40	--	--	--	<9
443200105431001	76-07-22	<100	2	70	60	470	490	.0	.0	0	0
	76-07-22	--	<34	--	70	--	60	--	--	--	<23
443345105591201	76-07-12	<100	3	90	90	10	10	.1	.1	0	0
	76-07-12	--	<8	--	80	--	<5	--	--	--	<5
443745106000001	76-07-26	<100	1	60	60	10	20	.6	.1	0	0
	76-07-26	--	34	--	60	--	40	--	--	--	<10
445151105460012	76-08-11	--	3	30	20	--	0	--	.0	--	1
	76-08-11	--	<16	--	10	--	<10	--	--	--	<10
445150105450001	76-08-11	--	4	--	20	--	10	--	.2	--	1
	76-08-11	--	<16	--	10	--	<10	--	--	--	<10
444748105565401	76-07-08	<100	2	170	170	10	10	.0	.0	2	0
445515105194501	76-07-24	<100	8	10	0	0	0	.0	.0	1	1
	76-07-24	--	12	--	10	--	10	--	--	--	<5
445622105471901	76-07-09	<100	0	80	80	10	10	.0	.0	0	0
442700105342001	76-07-10	<100	0	10	10	70	60	.0	.1	46	44

STATION NUMBER	DATE OF SAMPLE	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	DISSOLVED MANGANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DISSOLVED MERCURY (HG) (UG/L)	TOTAL MOLYBDENUM (MO) (UG/L)	DISSOLVED MOLYBDENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)
CARBON COUNTY--Continued											
413802107333101	76-05-06	--	--	--	--	--	--	--	--	--	--
413741107335801	76-02-10	20	--	30	--	700	--	--	--	20	--
413518107295701	76-04-20	1	40	40	270	270	.0	.0	0	0	<50
414025107294101	76-04-14	0	40	40	40	40	.0	.0	0	0	<50
414658107254801	76-05-11	1	--	60	--	200	--	.0	--	0	--
415408106463001	76-06-04	0	90	90	240	220	<.5	<.5	0	0	24
415940106445001	76-06-03	1	10	0	320	280	<.5	<.5	3	2	4
415838106480701	76-06-03	0	50	50	110	100	<.5	<.5	0	0	20
420052106472801	76-05-27	5	770	700	2000	1900	.1	.0	0	0	50
420001106461501	76-05-28	5	60	30	170	30	.3	.0	2	2	100

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRACE METALS ANALYSES

STATION NUMBER	DATE OF SAMPLE	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED TIN (SN) (UG/L)	DIS-SOLVED TI-TANIUM (TI) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)
				CAMPBELL COUNTY--Continued						
440900105062501	76-07-20	--	2	0	0	--	--	--	--	.0
	76-07-20	--	<9	--	--	<5	180	<14	<9	<18
440750105073501	76-07-20	--	4	0	0	--	--	--	--	.0
	76-07-20	--	19	--	--	<5	190	<14	40	<19
440820105180001	76-07-27	--	12	0	0	--	--	--	--	.0
	76-07-27	--	57	--	--	11	1900	220	<20	<34
440815105503501	76-07-27	<50	3	0	0	--	--	--	--	.0
	76-07-27	--	13	--	--	<2	80	<5	9	<6.1
441040105520001	76-07-21	<50	3	0	0	--	--	--	--	.0
	76-07-21	--	<4	--	--	<2	180	<7	<4	<8.8
441749105221901	75-11-18	<50	26	0	1	--	--	--	--	2.5
441716105224901	75-11-18	100	8	3	1	--	--	--	--	1.8
441717105232701	76-05-24	50	4	6	6	--	--	--	--	--
441628105240803	75-11-17	50	9	0	0	--	--	--	--	2.0
442400105260001	76-05-20	--	<7	--	--	<1	370	<7	<7	<7.0
441808105305001	76-05-05	--	<50	--	--	<5	9900	<50	<30	<40
441912105304203	76-05-25	<50	3	0	0	<2	170	--	<20	.0
442515105253001	76-05-26	--	<50	--	--	<5	6500	<50	<50	<50
441700105293201	76-07-06	<50	4	0	0	--	--	--	--	.5
442530105253001	76-05-26	50	3	0	0	--	--	--	--	.0
441700105310001	76-08-13	150	79	0	0	--	--	--	--	.0
	76-08-13	--	650	--	--	<9	1000	<28	110	<37
441615105300001	76-07-06	<50	5	0	0	--	--	--	--	.0
441800105320001	76-08-13	100	78	0	0	--	--	--	--	.0
	76-08-13	--	610	--	--	<9	610	110	<20	<37
441836105371201	76-05-25	--	--	--	--	--	--	--	--	--
443115105422901	76-07-22	50	3	0	0	--	--	--	--	.0
	76-07-22	--	<26	--	--	<13	6400	<38	<30	<51
443412105134501	76-07-05	--	4	--	0	--	--	--	--	.1
443345105403001	76-07-23	<50	3	0	0	--	--	--	--	.0
	76-07-23	--	<9	--	--	<5	450	<14	<5	<18
443200105431001	76-07-22	50	4	20	20	--	--	--	--	.0
	76-07-22	--	<23	--	--	<11	750	<34	<20	<45
443345105591201	76-07-12	<50	4	0	0	--	--	--	--	.0
	76-07-12	--	<5	--	--	<3	60	<8	<5	<11
443745106000001	76-07-26	<50	4	0	0	--	--	--	--	.0
	76-07-26	--	<10	--	--	<5	200	<15	<5	<20
445151105460012	76-08-11	--	2	0	0	--	--	--	--	.0
	76-08-11	--	<10	--	--	<5	110	<16	<10	<21
445150105450001	76-08-11	--	0	0	0	--	--	--	--	.0
	76-08-11	--	<10	--	--	<5	80	<16	<10	<21
444748105565401	76-07-08	<50	4	0	0	--	--	--	--	.1
445515105194501	76-07-24	<50	3	0	0	--	--	--	--	.0
	76-07-24	--	<5	--	--	<3	70	<8	<3	<11
445622105471901	76-07-09	<50	2	0	0	--	--	--	--	.0
442700105342001	76-07-10	<50	2	1	1	--	--	--	--	.3

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED TIN (SN) (UG/L)	DIS-SOLVED TI-TANIUM (TI) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)
				CARBON COUNTY--Continued					
413802107333101	76-05-06	--	--	--	--	--	--	--	--
413741107335801	76-02-10	<15	--	--	<2	3000	<15	<7	<10
413518107295701	76-04-20	0	0	0	--	--	--	--	.0
414025107294101	76-04-14	1	0	0	--	--	--	--	.3
414658107254801	76-05-11	0	--	0	--	--	--	--	74
415408106463001	76-06-04	12	0	0	--	--	--	--	--
415940106445001	76-06-03	3	2	0	--	--	--	--	.0
415838106480701	76-06-03	12	0	0	--	--	--	--	--
420052106472801	76-05-27	10	0	0	--	--	--	--	.0
420001106461501	76-05-28	11	0	0	--	--	--	--	.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRACE METALS ANALYSES

CAMPBELL COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED ZIR-CONIUM (ZR) (UG/L)
440900105062501	76-07-20	--	0	--
	76-07-20	--	0	<20
440750105073501	76-07-20	--	10	--
	76-07-20	--	--	<20
440820105180001	76-07-27	--	1800	--
	76-07-27	--	2800	<30
440815105503501	76-07-27	10	10	--
	76-07-27	--	0	<6
441040105520001	76-07-21	0	0	--
	76-07-21	--	0	<9
441749105221901	75-11-18	30	30	--
441716105224901	75-11-18	190	30	--
441717105232701	76-05-24	10	0	--
441628105240803	75-11-17	70	20	--
442400105260001	76-05-20	--	0	<20
441808105305001	76-05-05	--	--	<70
441912105304203	76-05-25	20	20	<40
442515105253001	76-05-26	--	370	<100
441700105293201	76-07-06	90	80	--
442530105253001	76-05-26	440	100	--
441700105310001	76-08-13	310	140	--
	76-08-13	--	150	<40
441615105300001	76-07-06	50	30	--
441800105320001	76-08-13	320	140	--
	76-08-13	--	140	<40
441836105371201	76-05-25	--	--	--
443115105422901	76-07-22	210	200	--
	76-07-22	--	260	<50
443412105134501	76-07-05	--	10	--
443345105403001	76-07-23	0	0	--
	76-07-23	--	0	<20
443200105431001	76-07-22	30	30	--
	76-07-22	--	20	<50
443345105591201	76-07-12	10	10	--
	76-07-12	--	0	<10
443745106000001	76-07-26	0	0	--
	76-07-26	--	0	<20
445151105460012	76-08-11	--	10	--
	76-08-11	--	0	<20
445150105450001	76-08-11	--	10	--
	76-08-11	--	0	<20
444748105565401	76-07-08	0	0	--
445515105194501	76-07-24	20	0	--
	76-07-24	--	0	<10
445622105471901	76-07-09	1800	980	--
442700105342001	76-07-10	40	20	--

CARBON COUNTY--Continued

STATION NUMBER	DATE OF SAMPLE	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED ZIR-CONIUM (ZR) (UG/L)
413802107333101	76-05-06	--	--	--
413741107335801	76-02-10	--	60	<30
413518107295701	76-04-20	20	0	--
414025107294101	76-04-14	140	110	--
414658107254801	76-05-11	--	30	--
415408106463001	76-06-04	1200	130	--
415940106445001	76-06-03	6000	5200	--
415838106480701	76-06-03	1600	530	--
420052106472801	76-05-27	370	50	--
420001106461501	76-05-28	4500	50	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRACE METALS ANALYSES

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT)	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ANTI-MONY (SB) (UG/L)
			CONVERSE COUNTY						
424845105523001	33N 075W 20AA 01	--	GW	76-07-22	0745	--	--	10	--
430242105421001	35N 074W 35CAA01	--	GW	75-10-30	A1500	--	--	50	--
			CROOK COUNTY						
443433104214001	51N 063W 12ADB01	--	GW	75-11-05	1500	--	20	0	1
443435104210201	53N 062W 19DBB01	317MNLS	GW	75-11-05	1600	--	20	0	0

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT)	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ANTI-MONY (SB) (UG/L)
			JOHNSON COUNTY						
433153106352080	41N 081W 09C 01	331MDSN	GW	76-09-16	1130	--	--	0	--
430432106575701	41N 084W 20BAC01	--	GW	76-09-15	1440	--	--	30	--
441112106493500	49N 083W 27DBA01	--	GW	76-09-14	1220	--	--	10	--
			NATRONA COUNTY						
431854106110801	39N 078W 26CDC01	331MDSN	GW	76-07-21	1200	--	--	--	--
432427106180101	40N 079W 26AAC01	--	GW	76-07-22	1200	--	--	0	--
432340106230001	40N 079W 31BCA01	331MDSN	GW	76-07-21	1400	--	--	10	--
			SHERIDAN COUNTY						
444657107090001	56N 085W 31BD 01	125FRUN	GW	76-08-16	1200	116	250	40	0
		125FRUN	GW	76-08-16	A1205	116	--	10	--
444700107100001	56N 086W 05AA 01	--	GW	76-08-16	1600	--	160	10	0
		--	GW	76-08-16	A1605	--	--	60	--
445355107315001	57N 087W 21DBC01	331MDSN	GW	76-07-19	1350	--	--	0	--

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT)	TOTAL ALUM-INUM (AL) (UG/L)	DIS-SOLVED ALUM-INUM (AL) (UG/L)	TOTAL ANTI-MONY (SB) (UG/L)
			WESTON COUNTY						
435219104055402	45N 060W 20BB 01	--	GW	75-11-11	1500	--	--	20	--
435440104091001	45N 061W 02BC 01	317MNLS	GW.	75-11-07	0930	720	60	0	1
435030104110001	45N 061W 33AB 01	337PHSP	GW	76-07-13	1040	3596	--	10	--
435800104210001	46N 062W 18BDC01	337PHSP	GW	76-07-13	1500	2677	--	10	--

A Trace elements determined by spectrographic analysis.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRACE METALS ANALYSES

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED ANTI-MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BISMUTH (BI) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)
CONVERSE COUNTY--Continued											
424845105523001	76-07-22	--	--	25	100	--	--	--	200	--	--
430242105421001	75-10-30	--	--	--	300	--	<1	<5	70	--	--
CROOK COUNTY--Continued											
443433104214001	75-11-05	1	2	2	--	10	10	--	30	--	<10
443435104210201	75-11-05	0	2	2	--	10	20	--	10	10	--

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED ANTI-MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	TOTAL BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BISMUTH (BI) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	TOTAL CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)
JOHNSON COUNTY--Continued											
433153106352000	76-09-16	--	--	0	100	--	--	--	360	--	0
430432106575701	76-09-15	--	--	3	0	--	--	--	20	--	0
441112106493500	76-09-14	--	--	1	0	--	--	--	7	--	0
NATRONA COUNTY--Continued											
431854106110801	76-07-21	--	--	12	100	--	--	--	890	--	0
432427106180101	76-07-22	--	--	5	0	--	--	--	20	--	0
432340106230001	76-07-21	--	--	2	0	--	--	--	430	--	0
SHERIDAN COUNTY--Continued											
444657107090001	76-08-16	0	1	0	--	0	--	0	140	20	0
	76-08-16	--	--	--	30	--	<5	<5	60	--	1
444700107100001	76-08-16	0	0	0	--	130	--	--	--	<10	1
	76-08-16	--	--	--	20	--	<2	<5	110	--	1
445355107315001	76-07-19	--	--	1	200	--	--	--	230	--	0

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED ANTI-MONY (SB) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	DIS-SOLVED BARIUM (BA) (UG/L)	DIS-SOLVED BERYL-LIUM (BE) (UG/L)	DIS-SOLVED BORON (B) (UG/L)	SUS-PENDED CAD-MIUM (CD) (UG/L)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)
WESTON COUNTY--Continued											
435219104055402	75-11-11	--	--	2	0	10	50	--	1	--	10
435440104091001	75-11-07	1	2	1	--	0	30	10	0	0	0
435030104110001	76-07-13	--	--	3	0	--	10	--	1	--	0
435800104210001	76-07-13	--	--	3	100	--	6	--	0	--	0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRACE METALS ANALYSES

STATION NUMBER	DATE OF SAMPLE	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED GALLIUM (GA) (UG/L)	DISSOLVED GERMANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)
CONVERSE COUNTY--Continued											
424845105523001	76-07-22	0	--	0	--	--	0	--	--	--	2400
430242105421001	75-10-30	<8	--	<3	<3	--	1	<2	<5	--	30
CROOK COUNTY--Continued											
443433104214001	75-11-05	0	20	2	--	20	4	--	--	320	0
443435104210201	75-11-05	0	0	0	--	<10	6	--	--	10	10

STATION NUMBER	DATE OF SAMPLE	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	DISSOLVED GALLIUM (GA) (UG/L)	DISSOLVED GERMANIUM (GE) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)
JOHNSON COUNTY--Continued											
433153106352000	76-09-16	--	10	--	--	1	--	--	--	870	--
430432106575701	76-09-15	--	0	--	--	5	--	--	--	30	--
441112106493500	76-09-14	--	0	--	--	1	--	--	--	90	--
NATRONA COUNTY--Continued											
431854106110801	76-07-21	--	0	--	--	0	--	--	--	6900	--
432427106180101	76-07-22	--	0	--	--	1	--	--	--	20	--
432340106230001	76-07-21	--	10	--	--	0	--	--	--	2400	--
SHERIDAN COUNTY--Continued											
444657107090001	76-08-16	10	0	--	10	0	--	--	560	20	<100
	76-08-16	--	5	<5	--	<2	<5	<10	--	10	--
444700107100001	76-08-16	0	0	--	<10	0	--	--	430	20	<100
	76-08-16	--	<5	<5	--	3	<5	<10	--	110	--
445355107315001	76-07-19	--	0	--	--	0	--	--	--	20	--

STATION NUMBER	DATE OF SAMPLE	DISSOLVED COBALT (CO) (UG/L)	TOTAL COPPER (CU) (UG/L)	DISSOLVED COPPER (CU) (UG/L)	TOTAL IRON (FE) (UG/L)	DISSOLVED IRON (FE) (UG/L)	TOTAL LEAD (PB) (UG/L)	DISSOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DISSOLVED LITHIUM (LI) (UG/L)	TOTAL MANGANESE (MN) (UG/L)
WESTON COUNTY--Continued											
435219104055402	75-11-11	0	--	1	--	0	--	9	--	20	--
435440104091001	75-11-07	--	60	1	0	0	100	0	10	2	10
435030104110001	76-07-13	--	--	2	--	20	--	0	--	10	--
435800104210001	76-07-13	--	--	1	--	20	--	0	--	0	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRACE METALS ANALYSES

STATION NUMBER	DATE OF SAMPLE	TOTAL LEAD (PB) (UG/L)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)
CONVERSE COUNTY--Continued											
424845105523001	76-07-22	--	0	--	150	--	300	--	.0	--	27
430242105421001	75-10-30	--	<3	--	20	--	7	--	--	--	4
CROOK COUNTY--Continued											
443433104214001	75-11-05	<100	0	9	0	30	0	--	.0	2	1
443435104210201	75-11-05	<100	2	9	2	10	6	.0	.0	2	1

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LITHIUM (LI) (UG/L)	DIS-SOLVED LITHIUM (LI) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)
JOHNSON COUNTY--Continued											
433153106352000	76-09-16	0	--	360	--	20	--	.0	--	2	--
430432106575701	76-09-15	1	--	10	--	0	--	.0	--	0	--
441112106493500	76-09-14	5	--	0	--	70	--	.0	--	4	--
NATRONA COUNTY--Continued											
431854106110801	76-07-21	0	--	870	--	150	--	.0	--	8	--
432427106180101	76-07-22	3	--	10	--	10	--	.0	--	0	--
432340106230001	76-07-21	0	--	390	--	240	--	.0	--	5	--
SHERIDAN COUNTY--Continued											
444657107090001	76-08-16	1	30	40	40	20	.0	.0	0	0	<50
	76-08-16	<7	--	30	--	<5	--	--	--	<5	--
444700107100001	76-08-16	1	30	30	20	20	.0	.2	0	0	<50
	76-08-16	21	--	30	--	20	--	--	--	<5	--
445355107315001	76-07-19	0	--	0	--	0	--	.0	--	2	--

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MERCURY (HG) (UG/L)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MOLYB-DENUM (MO) (UG/L)	DIS-SOLVED MOLYB-DENUM (MO) (UG/L)	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)
WESTON COUNTY--Continued											
435219104055402	75-11-11	10	.0	--	--	6	--	2	--	2	0
435440104091001	75-11-07	10	.0	.0	3	2	150	2	1	1	--
435030104110001	76-07-13	20	--	.0	--	4	--	--	--	4	--
435800104210001	76-07-13	0	--	.0	--	2	--	--	--	1	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRACE METALS ANALYSES

STATION NUMBER	DATE OF SAMPLE	TOTAL NICKEL (NI) (UG/L)	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED TIN (SN) (UG/L)	DIS-SOLVED TI-TANIUM (TI) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)
				CONVERSE COUNTY--Continued						
424845105523001	76-07-22	--	--	--	0	--	1600	--	--	.0
430242105421001	75-10-30	--	<3	--	--	<1	700	<5	2	2.0
				CROOK COUNTY--Continued						
443433104214001	75-11-05	100	2	0	1	--	--	--	--	3.8
443435104210201	75-11-05	100	4	0	1	--	--	--	--	5.1

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED NICKEL (NI) (UG/L)	TOTAL SELE-NIUM (SE) (UG/L)	DIS-SOLVED SELE-NIUM (SE) (UG/L)	DIS-SOLVED SILVER (AG) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED TIN (SN) (UG/L)	DIS-SOLVED TI-TANIUM (TI) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)
				JOHNSON COUNTY--Continued					
433153106352000	76-09-16	--	--	0	--	3400	--	--	6.5
430432106575701	76-09-15	--	--	1	--	100	--	--	2.9
441112106493500	76-09-14	--	--	1	--	90	--	--	.7
				NATRONA COUNTY--Continued					
431854106110801	76-07-21	--	--	0	--	6000	--	--	10
432427106180101	76-07-22	--	--	1	--	360	--	--	3.1
432340106230001	76-07-21	--	--	0	--	4600	--	--	2.4
				SHERIDAN COUNTY--Continued					
444657107090001	76-08-16	2	0	0	--	--	--	--	.0
	76-08-16	<5	--	--	<2	40	<7	<5	<9.2
444700107100001	76-08-16	0	0	0	--	--	--	--	.0
	76-08-16	<5	--	--	<2	160	<7	<2	<9.0
445355107315001	76-07-19	--	--	4	--	160	--	--	1.5

STATION NUMBER	DATE OF SAMPLE	DIS-SOLVED STRON-TIUM (SR) (UG/L)	DIS-SOLVED VANA-DIUM (V) (UG/L)	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)
		WESTON COUNTY--Continued			
435219104055402	75-11-11	3600	2.0	--	50
435440104091001	75-11-07	--	6.6	20	10
435030104110001	76-07-13	610	2.8	--	0
435800104210001	76-07-13	250	1.6	--	20

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

TRACE METALS ANALYSES

STATION NUMBER	DATE OF SAMPLE	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED ZIR-CONIUM (ZR) (UG/L)
CONVERSE COUNTY--Continued				
424845105523001	76-07-22	--	30	--
430242105421001	75-10-30	--	<8	<5
CROOK COUNTY--Continued				
443433104214001	75-11-05	6	0	--
443435104210201	75-11-05	10	20	--

STATION NUMBER	DATE OF SAMPLE	TOTAL ZINC (ZN) (UG/L)	DIS-SOLVED ZINC (ZN) (UG/L)	DIS-SOLVED ZIR-CONIUM (ZR) (UG/L)
JOHNSON COUNTY--Continued				
433153106352000	76-09-16	--	0	--
430432106575701	76-09-15	--	70	--
441112106493500	76-09-14	--	20	--
NATRONA COUNTY--Continued				
431854106110801	76-07-21	--	140	--
432427106180101	76-07-22	--	40	--
432340106230001	76-07-21	--	20	--
SHERIDAN COUNTY--Continued				
444657107090001	76-08-16	410	280	--
	76-08-16	--	260	<9
444700107100001	76-08-16	400	270	--
	76-08-16	--	270	<9
445355107315001	76-07-19	--	30	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

RADIOCHEMICAL ANALYSES

STATION NUMBER	LOCAL IDENT-I-FIER	GEO-LOGIC UNIT 1/	SITE	DATE OF SAMPLE	TIME	TOTAL DEPTH OF WELL (FT)	DIS-SOLVED GROSS ALPHA AS U-NAT. (UG/L)	SUS-PENDED GROSS ALPHA AS U-NAT. (UG/L)	DIS-SOLVED GROSS BETA AS CS-137 (PC/L)
CAMPBELL COUNTY									
440815105503501	48N 075W 14BD 01	124WSTC	GW	76-07-27	1700	195	<5.2	--	2.1
441040105520001	49N 075W 34CA 01	124WSTC	GW	76-07-21	0900	515	<9.2	--	<1.9
441717105232701	50N 071W 28AAC01	--	GW	76-05-24	1500	--	<25	<.4	24
442400105260001	50N 072W 14AAA01	--	GW	76-05-26	1400	--	<13	<.4	9.8
441808105305001	50N 072W 21AAC01	--	GW	76-05-05	1500	--	<30	<.4	29
441912105304203	50N 072W 21AAC03	--	GW	76-05-25	1330	--	<16	<.4	5.0
442515105253001	50N 072W 26AAC01	--	GW	76-05-26	0945	--	<62	<.4	22
442530105253001	50N 072W 26BBB01	--	GW	76-05-26	0830	--	<57	<.4	23
441700105310001	50N 072W 28AB 01	124WSTC	GW	76-08-13	1100	232	<37	--	<8.0
441800105320001	50N 073W 01AA 01	--	GW	76-08-13	1300	--	<30	--	<7.7
443115105422901	52N 074W 01BA 01	125FRUN	GW	76-07-22	1400	--	<36	--	12
443345105403001	53N 073W 20BD 01	125FRUN	GW	76-07-23	1100	--	<13	--	6.1
443200105431001	53N 074W 35AB 01	125FRUN	GW	76-07-22	1100	210	<47	--	11
443345105591201	53N 076W 22AB 01	124WSTC	GW	76-07-12	1400	1050	<12	--	8.9
443745106000001	54N 076W 27BC 01	124WSTC	GW	76-07-26	1400	695	<14	--	6.0
445515105194501	57N 070W 19BA 01	125FRUN	GW	76-07-24	1300	606	<9.7	--	<2.4
CARBON COUNTY									
413518107295701	19N 090W 26CAD01	211MVRD	SP	76-04-20	1600	.00	<12	<.4	9.8
414025107294[illegible]	20N 090W 26AAB01	125FRUN	GW	76-04-14	0915	--	<6.9	<.4	13
414658107254801	21N 089W 22AAA01	125FRUN	GW	76-05-11	1630	340	<67	1.1	<12
CONVERSE COUNTY									
424845105523001	33N 075W 20AA 01	--	GW	76-07-22	0745	--	1900	110	350
430242105421001	35N 074W 35CAA01	--	GW	75-10-30	1500	--	120	13	20
JOHNSON COUNTY									
433153106352000	41N 081W 09C 01	331MDSN	GW	76-09-16	1130	--	350	3.1	68
430432106575701	41N 084W 20BAC01	--	GW	76-09-15	1440	--	<4.2	<.4	<2.3
441112106493500	49N 083W 27DBA01	--	GW	76-09-14	1220	--	<3.0	--	1.5
NATRONA COUNTY									
431854106110801	39N 078W 26CDC01	331MDSN	GW	76-07-21	1200	--	190	18	93
432427106180101	40N 079W 26AAC01	--	GW	76-07-22	1200	--	18	<.4	4.1
432340106230001	40N 079W 31BCA01	331MDSN	GW	76-07-21	1400	--	270	7.5	69
SHERIDAN COUNTY									
444657107090001	56N 085W 31BD 01	125FRUN	GW	76-08-16	1200	116	<8.0	--	7.9
444700107100001	56N 086W 05AA 01	--	GW	76-08-16	1600	--	<5.8	--	10
445355107315001	57N 087W 21DBC01	331MDSN	GW	76-07-19	1350	--	3.0	<.4	3.0
WESTON COUNTY									
435030104110001	45N 061W 33AB 01	337PHSP	GW	76-07-13	1040	3596	20	<.4	5.4
435800104210001	46N 062W 18BDC01	337PHSP	GW	76-07-13	1500	2677	5.6	<.4	2.1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1975 TO SEPTEMBER 1976

RADIOCHEMICAL ANALYSES

STATION NUMBER	DATE OF SAMPLE	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (PLAN-CHET COUNT) (PC/L)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L)	DIS-SOLVED NATURAL URANIUM (U) (UG/L)	DIS-SOLVED URANIUM (U) (UG/L)	DIS-SOLVED URANIUM (DIRECT FLUORO-METRIC) (PC/L)
				CAMPBELL COUNTY--Continued					
440815105503501	76-07-27	--	1.9	--	<.1	--	--	.04	--
441040105520001	76-07-21	--	<1.6	--	<.1	--	--	<.01	--
441717105232701	76-05-24	<.4	21	<.4	--	.15	--	--	1.1
442400105260001	76-05-26	<.4	8.5	<.4	--	1.1	--	--	.6
441808105305001	76-05-05	<.4	24	<.4	--	.11	--	--	1.1
441912105304203	76-05-25	<.4	4.0	<.4	--	.25	--	--	--
442515105253001	76-05-26	<.4	18	<.4	--	.60	--	.30	--
442530105253001	76-05-26	<.4	19	<.4	--	.77	--	.09	--
441700105310001	76-08-13	--	<6.7	--	.1	--	--	.06	--
441800105320001	76-08-13	--	<6.6	--	.1	--	--	.10	--
443115105422901	76-07-22	--	9.6	--	.3	--	--	.03	--
443345105403001	76-07-23	--	4.8	--	.5	--	--	.04	--
443200105431001	76-07-22	--	9.9	--	.3	--	14	--	14
443345105591201	76-07-12	--	7.0	--	.8	--	--	<.01	--
443745106000001	76-07-26	--	4.8	--	.1	--	--	.04	--
445515105194501	76-07-24	--	<1.9	--	<.1	--	--	.02	--

STATION NUMBER	DATE OF SAMPLE	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (RADON METHOD) (PC/L)	DIS-SOLVED URANIUM (U) (UG/L)	DIS-SOLVED URANIUM (DIRECT FLUORO-METRIC) (PC/L)		
			CARBON COUNTY--Continued						
413518107295701	76-04-20	<.4	7.8	<.4	.33	.20	--		
414025107294101	76-04-14	.4	10	.4	.29	.10	--		
414658107254801	76-05-11	2.1	<9.8	1.9	.53	--	6.9		
			CONVERSE COUNTY--Continued						
424845105523001	76-07-22	12	280	11	--	--	--	--	--
430242105421001	75-10-30	7.8	17	6.4	--	2.2	--	--	19

STATION NUMBER	DATE OF SAMPLE	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)	DIS-SOLVED RA-226 (PLAN-CHET COUNT) (PC/L)	DIS-SOLVED URANIUM (U) (UG/L)	DIS-SOLVED URANIUM (DIRECT FLUORO-METRIC) (PC/L)
			JOHNSON COUNTY--Continued				
433153106352000	76-09-16	.7	54	.6	--	--	--
430432106575701	76-09-15	<.4	<1.9	<.4	--	--	1.3
441112106493500	76-09-14	--	1.2	--	--	--	--
			NATRONA COUNTY--Continued				
431854106110801	76-07-21	3.9	84	3.4	--	--	--
432427106180101	76-07-22	.4	3.3	<.4	--	--	--
432348106230001	76-07-21	2.0	58	1.8	--	--	--
			SHERIDAN COUNTY--Continued				
444657107090001	76-08-16	--	6.9	--	.4	.10	--
444700107100001	76-08-16	--	8.9	--	.5	.20	--
445355107315001	76-07-19	<.4	2.3	<.4	--	--	--

STATION NUMBER	DATE OF SAMPLE	SUS-PENDED GROSS BETA AS CS-137 (PC/L)	DIS-SOLVED GROSS BETA AS SR90 /Y90 (PC/L)	SUS-PENDED GROSS BETA AS SR90 /Y90 (PC/L)
		WESTON COUNTY--Continued		
435030104110001	76-07-13	<.4	4.4	<.4
435800104210001	76-07-13	.5	1.7	.4

1/ GEOLOGIC UNIT

111ALVM	alluvium
111LCTN	lacustrine deposits
112GLCL	glacial deposits
124HANN	Hanna Formation
124WSTC	Wasatch Formation
125FRRS	Ferris Formation
125FRUN	Fort Union Formation
211MVRD	Mesaverde Formation
317MNLS	Minnelusa Formation
331MDSN	Madison Limestone
337PHSP	Pahasapa Limestone
374FLTD	Flathead Sandstone

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★ U. S. GOVERNMENT PRINTING OFFICE 1977 - 782-079/23 Reg. 8

August 6, 1976

FACTORS FOR CONVERTING ENGLISH UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the English units published herein to the International System of Units (SI). Subsequent reports will contain both the English and SI unit equivalents in the station manuscript descriptions until such time that all data will be published in SI units.

Multiply English units	By	To obtain SI units
	Length	
inches (in)	$2.54\text{x}10^{1}$	millimeters (mm)
	$2.54\text{x}10^{-2}$	meters (m)
feet (ft)	$3.048\text{x}10^{-1}$	meters (m)
miles (mi)	$1.609\text{x}10^{0}$	kilometers (km)
	Area	
acres	$4.047\text{x}10^{3}$	square meters (m^2)
	$4.047\text{x}10^{-1}$	*hectares (ha)
	$4.047\text{x}10^{-1}$	square hectometers (hm^2)
	$4.047\text{x}10^{-3}$	square kilometers (km^2)
square miles (mi^2)	$2.590\text{x}10^{0}$	square kilometers (km^2)
	Volume	
gallons (gal)	$3.785\text{x}10^{0}$	**liters (l)
	$3.785\text{x}10^{0}$	cubic decimeters (dm^3)
	$3.785\text{x}10^{-3}$	cubic meters (m^3)
million gallons (10^6 gal)	$3.785\text{x}10^{3}$	cubic meters (m^3)
	$3.785\text{x}10^{-3}$	cubic hectometers (hm^3)
cubic feet (ft^3)	$2.832\text{x}10^{1}$	cubic decimeters (dm^3)
	$2.832\text{x}10^{-2}$	cubic meters (m^3)
cfs-days [(ft^3/s) · d]	$2.447\text{x}10^{3}$	cubic meters (m^3)
	$2.447\text{x}10^{-3}$	cubic hectometers (hm^3)
acre-feet (acre-ft)	$1.233\text{x}10^{3}$	cubic meters (m^3)
	$1.233\text{x}10^{-3}$	cubic hectometers (hm^3)
	$1.233\text{x}10^{-6}$	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	$2.832\text{x}10^{1}$	liters per second (l/s)
	$2.832\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$2.832\text{x}10^{-2}$	cubic meters per second (m^3/s)
gallons per minute (gal/min)	$6.309\text{x}10^{-2}$	liters per second (l/s)
	$6.309\text{x}10^{-2}$	cubic decimeters per second (dm^3/s)
	$6.309\text{x}10^{-5}$	cubic meters per second (m^3/s)
million gallons per day (mgal/d)	$4.381\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$4.381\text{x}10^{-2}$	cubic meters per second (m^3/s)
	Mass	
tons (short)	$9.072\text{x}10^{-1}$	tonnes (t)

*The unit hectare is approved for use with the International System (SI) for a limited time. See NBS Special Bulletin 330, p.15, 1972 edition.

**The unit liter is accepted for use with the International System (SI). See NBS Special Bulletin 330, p. 13, 1972 edition.